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Inside Dope

By George F. Taubeneck

Smart Solution

Lower Taxes Mean More Jobs,
Higher Wages, Bigger Sales
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Decontrol: WPB vs. OPA
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Smart Solution

The story behind the announcement that the United Packinghouse Workers union has negotiated a wage increase of 17½ cents an hour for workers at the Hormel plant at Austin, Minn., contains what may well be the nucleus of a plan which would solve much of our labor strife during the reconversion period.

When union leaders began the negotiations for this increase, the management of the packing firm pointed out that wage increases merely increase the cost of production unless there is increased productivity by the workers.

Jay C. Hormel, president of the firm, then offered a proposition. He said he would grant his employees the 17½ cents an hour increase they wanted—which amounted approximately to a 20% increase—provided the workers would agree to a plan which would increase their productivity approximately 10%. A second provision he insisted upon was that all parties should agree to eliminate past unproductive "fringe" wage adjustments.

The union accepted this proposition. This is a darned good example of far-sighted labor relations. Such mutual understanding of the problems of management and labor leads to intelligent yielding by both sides in negotiations.

It also demonstrates something which has been lacking in our national labor policy during the reconversion period. While the war was on, we had the Little Steel formula. It was a line to which we could hew. Since the end of the war, however, there has been no accepted wage policy. The result has been a spate of union demands for increases ranging from 10% and 15%, to 20% and 30%. There has been little, if any, consideration of how much of an increase labor cost industry can absorb. And so, management, in many instances, has taken an unyielding position against wage raises.

In a well ordered economy, wage increases and productivity of workers must be tied together. Labor must assume responsibility for increased output when it demands higher wages.

Management can dangle the incentive of higher wages before the eyes of its employees to attract greater productivity from workers.

Only when the two get together will the vexing problem which is causing much of the labor unrest of this period be solved satisfactorily.

Lower Taxes Mean More Jobs, Higher Wages, Bigger Sales

The importance of lower taxes as a means of creating more and better jobs for workers, higher income for farmers, and increased business for retail stores and service occupations is graphically portrayed in "This Way Up," a guide to high-level employment and pay, written by Clinton Davidson, president of Management Planning, Inc., New York, fiscal counsel to 85 leading companies in 30 industries.

Mr. Davidson's formula for full employment is based on the fact that wages and salaries total two-thirds of America's buying power, and that postwar prosperity depends upon increasing jobs and wages together.

This can be done, he points out, through the use of charts, graphs, illustrations, and supplementary

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4 Companies Get Distributor-Dealer Prices

Kelvinator

DETROIT—OPA has established maximum prices for four Kelvinator and Leonard refrigerator models on sales by distributors to dealers in Order 4, MPR 598, effective Oct. 25. The schedule follows:

Brand and model No.	In car-load lots Each	Ceiling prices for sales to dealers who buy	
		On split car basis Each	From distributor's warehouse Each
CS-7	\$ 91.34	\$ 92.70	\$ 97.27
C-7	103.85	105.46	112.94
CD-7	112.13	114.72	122.76
M-9	150.35	155.17	166.48

Brand and model No.	In car-load lots Each	Ceiling prices for sales to dealers who buy	
		On split car basis Each	From distributor's warehouse Each
SL-7	\$ 91.34	\$ 92.70	\$ 97.27
L-7	103.85	105.46	112.94
DL-7	112.13	114.72	122.76
LH-9	150.35	155.17	166.48

Prices include the Federal excise tax, the order states, and are "subject to each seller's customary terms, discounts, allowances, and other price differentials in effect on sales of similar articles."

Under Order 4, the ceiling prices are also subject to these conditions:

1. For a refrigerator with a left-hand door, \$2.50 may be added.
2. Purchases in carload lots are f.o.b. the purchaser's city. An additional charge may be made for purchases on a split car basis for switching and other freight fees in excess of carload freight charges. Purchases from the distributor's warehouse are

(Concluded on Page 4, Column 1)

Kelvinator Introduces 3 Electric Ranges

DETROIT—The new Kelvinator range line is comprised of three models, headed up by the Kelvinator "Automatic Cook" feature that starts, times, and stops all cooking operations, it was announced by Nash-Kelvinator Corp.

The line reveals the same step-up manufacturing and pricing policy characteristic of Kelvinator's "more sales per dealer" program in all its appliance activities, Charles T. Lawson, vice president in charge of sales, said.

The new top-of-the-line model, Mr. Lawson stated, is a "self-starting" electric range with an automatic timer that controls not only all oven operations but top of the range and deep-well cooking in addition. The "Automatic Cook" consists of an

(Concluded on Page 2, Column 4)

Program for A.S.R.E. Meeting Announced

NEW YORK CITY—Complete program for the annual meeting of The American Society of Refrigerating Engineers, to be held Dec. 10 to 12 at the Hotel Pennsylvania in New York City, has just been announced by headquarters of the society.

Technical sessions will be held on Monday afternoon, Dec. 10; Tuesday morning, Dec. 11; and Wednesday morning, Dec. 12. The A.S.R.E. annual luncheon will be given Tuesday noon, and the annual dinner dance will take place Tuesday night.

Capt. Ellis M. Zacharias, United States Navy, will be the speaker at the annual luncheon. He will talk on "Psychological Warfare Against Japan."

The technical program covers a variety of subjects, with some emphasis upon the "heavy" type of refrigeration system. The Tuesday

(Concluded on Page 2, Column 1)

G-E & Hotpoint

WASHINGTON, D. C.—Recently issued OPA Orders 2 and 3 under MPR 598 fix maximum prices for sales by distributors to dealers of three refrigerator models manufactured by Edison General Electric Appliance Co., Inc. and by the General Electric Co. The orders take effect Oct. 24.

Edison General Electric's Model EA-6-46 and General Electric's Model LB-6-46 have top prices of \$98.95 to servicing dealers and \$106.35 to non-servicing dealers. Edison G-E's Model EA-7-46 and G-E's Model LB-7-46 are limited to \$112.48 to servicing dealers and \$119.88 to non-servicing ones. Distributors may sell Edison G-E's Model EB-7-46 and G-E's JB-7-46 at \$132.42 to servicing dealers and at \$139.82 to non-servicing ones.

These prices include the Federal excise tax and the four-year replacement contract and are f.o.b. the distributor's warehouse. The distributor is allowed to add \$3.25 or a refrigerator with a left door but otherwise the prices are subject to each seller's customary terms, discounts, allowances, and other price differentials for similar articles.

Westinghouse Range Features Outlined

MANSFIELD, Ohio.—New 1946 electric ranges, styled with chromium trim and embodying new engineering developments in the construction of surface heating units, have been announced by R. M. Beatty, manager of the range department of the Westinghouse Electric Appliance Division.

"Initial production is on the new Champion model, a medium priced range," Mr. Beatty said, "and shipments of the new ranges to distributors will be made under a plan which permits display of the Westinghouse range at approximately the same time throughout the country."

"As rapidly as production facilities permit," he added, "Westinghouse plans to produce a series of models ranging from the large two oven size to small apartment sizes as well as a combination fuel-electric model for areas where the range is used to furnish room heat as well as for cooking."

In anticipating an increased public

(Concluded on Page 4, Column 4)

Contractors to Meet For Discussion of National Assn.

CHICAGO—A group of refrigeration contractors, under the general chairmanship of W. Ray Kromer of Oil Heating Devices, Inc. of Cleveland, has called a meeting in Chicago in December for the purpose of discussing whether or not refrigeration contractors should form a national organization.

The meeting is scheduled for 9:30 a.m. Monday, Dec. 10 at the Palmer House hotel in Chicago. There will be an open discussion on the question of the needs of a contractors' association.

Mr. Kromer, who was chairman of the National Refrigeration Service Council, the voluntarily formed group which developed the program for training refrigeration repairmen during the War, has asked individual contractors and representatives of local contractor groups to contact Harvey O. Miller of the Murphy & Miller Co., Inc., 1326 S. Michigan Ave., Chicago, if they plan to attend, so that arrangements can be made for the proper sized meeting room.

Those planning to attend should arrange for their own hotel accommodations, it was stated.

Frigidaire

DAYTON, Ohio—Order 199, MPR 64, drawn up by OPA, has established ceiling prices for two models of electric cooking ranges manufactured by Frigidaire division of General Motors Corp. Models affected are BI-17-C and BI-60.

For sales by factory owned branches to retail dealers, the prices (f.o.b. branch-warehouse city) are:

Model No.	Zone 1 Each	Zone 2 Each	Zone 3 Each	Zone 4 Each	Zone 5 Each
BI-17-C	\$131.56	\$132.99	\$134.78	\$136.63	\$139.25
BI-60	159.83	161.26	163.02	164.45	167.86

Prices (f.o.b. seller's city for sales by wholesale distributors to retail dealers are:

Model No.	Zone 1 Each	Zone 2 Each	Zone 3 Each	Zone 4 Each	Zone 5 Each
BI-17-C	\$128.80	\$130.10	\$131.73	\$132.86	\$135.79
BI-60	156.48	157.78	159.38	160.68	163.78

Sales to ultimate consumers by retail dealers who purchase directly from factory owned branches are governed by the following maximum prices:

Model No.	Zone 1 Each	Zone 2 Each	Zone 3 Each	Zone 4 Each	Zone 5 Each
BI-17-C	\$195.96	\$198.09	\$200.75	\$202.62	\$207.41
BI-60	238.03	240.16	242.82	244.95	250.01

Retail dealers who purchase from wholesale distributors for sales to

(Concluded on Page 4, Column 1)

Kaiser Says Appliance Rumor Is 'Premature'

DETROIT—Reports that the newly formed Kaiser Products Co., a Henry J. Kaiser subsidiary, will soon introduce a new line of electrical appliances, were termed "very premature" by a highly placed member of the Kaiser organization.

This official admitted that the Kaiser organization had been working on the development of such appliances, but that it "hasn't concluded to go forward" with the production and distribution of such products.

The reports have had it that Kaiser would produce a combination refrigerator, dishwasher, and kitchen sink in a single cabinet-type installation, and refrigerators, washing machines, dishwashers, and vacuum cleaners separately.

Deepfreeze Prices Set At Around \$400

CHICAGO—Price approval for its home freezer was received last week by Deepfreeze Division of Motor Products Corp. midway in the company's swing through a series of regional distributors' conferences from New York to San Francisco.

Delivery to distributors already is under way, and dealers will be able to sell the freezers in Zone 1 for \$399.50, in Zone 2 for \$407.25, and in Zone 3 for \$413, plus \$20 for installation in each case.

Deepfreeze will specialize in low temperature freezers alone, according to G. H. "Rock" Smith, vice president of Motor Products Corp. and general manager of the Deepfreeze Division.

In talks before Deepfreeze distributors in four major cities during the past three weeks, Mr. Smith and other top officials outlined the company's policies and plans for the future.

The present double chambered model will be followed by a single chambered unit early next year, and after that by other models, he said. A full line of many different sizes however is not planned, a policy

(Concluded on Page 16, Column 3)

Rema Details Activities for Coming Year

All-Industry Show Set For Oct. 29 to Nov. 1, Thorndike Announces

HOT SPRINGS, Va.—Members of Refrigeration Equipment Manufacturers Association in their Fall meeting here last week welcomed six new member companies to the organization and heard plans for an extended program of association activity in the coming year, highlighted by the revival of the All-Industry Refrigeration Show next fall.

The new member companies are: Chicago Seal Co.; Electric Power Equipment Corp.; Kinetic Chemicals, Inc.; Kold-Hold Mfg. Co.; Lehigh Foundries, Inc.; and Peerless of America, Inc. There are now 83 member companies in Rema.

K. B. Thorndike, vice president, Detroit Lubricator, and chairman of the All-Industry Show committee, announced the official dates for the exhibition. They are Oct. 29, 30, and 31, and Nov. 1 of 1946. The refrigerated locker plant industry will enter the show with the National Frozen Food Locker Association, Frozen Food Locker Manufacturers & Suppliers Association, and the Farm & Home Freezer Manufacturers Association acting as joint participants with Rema.

The entire exhibition space in the Cleveland Public Auditorium, comprising 650,000 sq. ft. of floor space, has been engaged for the Show, Chairman Thorndike announced.

The Refrigeration Equipment Wholesalers Association (formerly known as the National Refrigeration Supply Jobbers Association) and the Refrigeration Service Engineers Society are also making plans to hold conventions in Cleveland at the time of the Show.

Rema will have its headquarters and meetings at the Cleveland hotel, Mr. Thorndike said. Tentative plans call for the R.E.W.A. to headquarter

(Concluded on Page 29, Column 1)

Retailers Urge Dropping Of Regulation W

NEW YORK CITY—Abolition immediately of existing curbs on installment buying under Regulation W was urged by the Retail Credit Institute of America at a meeting here.

In a four-page letter to President Truman, the institute, representing retail merchants in 44 states, gave 11 reasons why the controls should be lifted with the end of the war and pointed out that the Chief Executive is empowered to end the controls through executive order.

Contending that "there is now no longer economic or social justification for this regulation," the institute declared:

"Continued restrictions will force millions of idle and lower-income families to cash their government bonds and savings to enable them to buy the things they need."

"They will work great and need less hardship on millions of returning

(Concluded on Back Page, Column 1)

Norge Workers Vote To End Strike

MUSKEGON HEIGHTS, Mich.—Employees of the Norge Division of Borg-Warner Corp. have voted to end a strike which has been in progress since September.

Officers of Local No. 404 stated that the workers would be on call whenever management was ready to resume production.

A.S.R.E. --

(Concluded from Page 1)

afternoon session is predominantly concerned with quick-frozen foods. Following is the complete program for the annual meeting:

Sunday, Dec. 9

11:00 a.m.—Advance Registration.
12:00 Noon—Meeting of Finance Committee.
1:00 p.m.—Luncheon meeting—Sections Committee.
1:00 p.m.—Luncheon meeting—Executive Committee.
6:30 p.m.—Council dinner meeting.

Monday, Dec. 10

9:30 a.m.—Meeting of Joint Committee on Industrial Refrigerating Equipment.
9:30 a.m.—Meeting—General Technical Committee.
9:30 a.m.—Meeting—Education Committee.
9:30 a.m.—Standard Project Committee—Food Freezers.
11:00 a.m.—Meeting—Standards Committee.
11:00 a.m.—Meeting—Awards Committee.
11:00 a.m.—Meeting—Membership Committee.
11:00 a.m.—Meeting—Program Committee.
11:00 a.m.—Meeting—Constitution Committee.
11:00 a.m.—Meeting—Committee on Relations with Other Organizations.
12:30 p.m.—Luncheon.
2:00 p.m.—First Technical Session. President John F. Stone presiding.
"Thermal Conductivity

6:30 p.m.—Dinner meeting, Publications Committee, A.S.R.E.
9:00 p.m.—Informal get-together.

Tuesday, Dec. 11

9:30 a.m.—Second Technical Session.
Vice President Charles S. Leopold presiding.
"Research and Quality Control of Precooked Frozen Foods"—B. L. Hutchings and C. F. Evers, Birds Eye-Snyder Division of General Foods Corp.
"Need of Technological Supervision in the Selection, Preparation Freezing of Fruits and Vegetables"—H. C. Diehl, The Refrigeration Research Foundation.
"Some Characteristics of Brines with a Method for Heat Capacity

of Insulating Materials at Low Mean Temperatures"—F. B. Rowley, R. C. Jordan, and R. M. Lander, University of Minnesota.

"Cold Storage Design and Construction"—Carl A. Anderson, Consulting Engineer, Seattle, Washington.
"Evaluation of Vibration Isolation Materials for Refrigerating Equipment"—E. S. Bishop and J. A. Galazzi, York Corp.

"Research Training in Colleges"—Richard C. Jordan, Chairman of the A.S.R.E. Education Committee.

12:30 p.m.—A.S.R.E. Annual Luncheon—Speaker—Capt. Ellis M. Zacharias, U. S. Navy, "Psychological Warfare Against Japan."

2:30 p.m.—Inspection Trips. American Airlines at LaGuardia Field. U. S. Testing Laboratories, Hoboken, N. J. Merchants Refrigerating Co., New York City.

2:30 p.m.—Meeting—Standard Project Committee—Marine Refrigeration. 4:00 p.m.—Meeting—Research Committee.

6:30 p.m.—Cocktail Party and Dinner-Dance.

Wednesday, Dec. 12

9:30 a.m.—Third Technical Session. Vice President R. H. Money presiding.

"Odors—Their Nature, Cause and Control"—F. H. Munkelt, W. B. Conner Engineering Co.
"Studies on Odor Elimination in Apple Storage"—C. R. Gross and R. M. Smock, New York State College of Agriculture, Cornell University.
"Reducing Heat Loads for Industrial Air Conditioning"—Lucien R. St. Onge, York Corp. Installation of officers for 1946.

12:30 p.m.—Luncheon meeting—A.S.R.E. Council.

Kelvinator's Top-of-the-Line Electric Range



An automatic timer that controls oven operations as well as top units and the deep-well cooker is a feature of new Kelvinator electric range pictured here, the top model of the company's three-model line.

Kelvinator --

(Concluded from Page 1)

electric clock, master cooking timer, selector switch, Minute-Timer, and twin appliance outlets in a trim panel under a streamlined fluorescent top-light.

Multiple-speed surface units provide direct contact heat "ranging from a low that cooks cream sauces without a double boiler to a high heat for fast cooking operations." Also there is a completely equipped, built in Scotch kettle. Twin appliance outlets can be used to control accessory appliances, such as toasters and percolators, automatically.

An additional feature is a thermostatically controlled "Warmer Drawer" which keeps foods at serving temperature, and can be used to warm serving dishes, rolls, and bread. It can also be used as a utility drawer. The two-unit broiler oven is big enough for a 25 pound turkey, has a smokeless broiler, bastes automatically, and has an automatic flood-light recessed in the back. Two additional roomy utility drawers at the bottom of the range, as well as the warmer drawer, slide smoothly on ball-bearing rollers.

In keeping with Kelvinator's step-up selling policy, two additional models for budget-minded purchasers are provided. Embodying all the basic features of the Automatic Cook model, these two ranges give the retailer a complete line to meet

every prospect's needs.

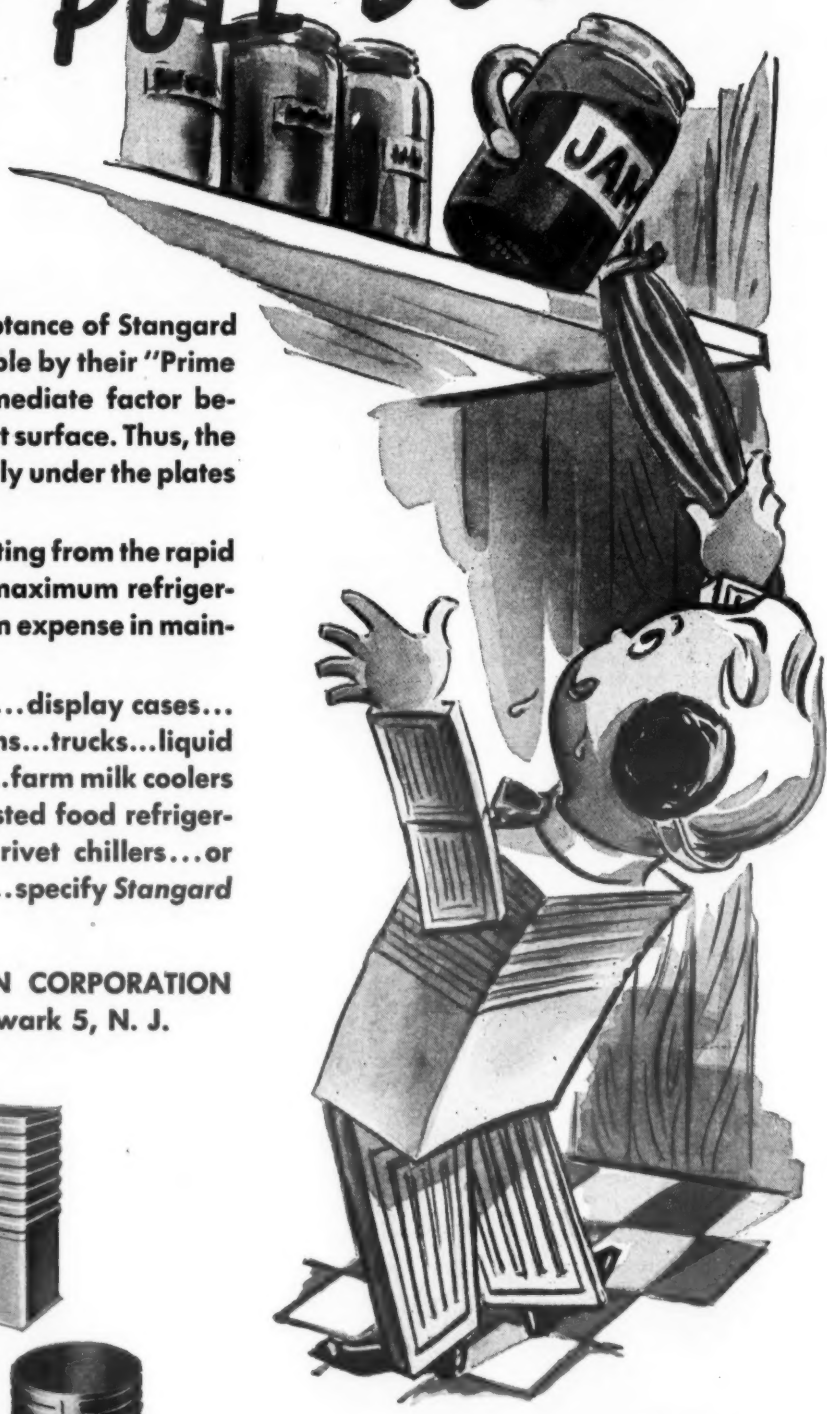
Some of the Kelvinator features common to all models are: bodies are of one-piece welded steel, with welded internal braces, and a one-piece heavy gauge steel cooking top and backguard; finish is of porcelain enamel throughout, everything white except inside surfaces, back and base, which are black; range top and backguard are acid-resisting, with a broad working surface covering 400 sq. in.

Surface units are rod-type; one, a seven-heat, 2,100-watt unit, and two seven-heat, 1,250-watt units. Switches are reversible seven-position type with chrome trimmed white plastic knobs which are mounted on a recessed inclined panel. Each switch is individually lighted.

The over-sized oven is equipped with both a top and bottom unit. The 3,000-watt broiler unit in the top of the oven, and the 2,400-watt baking unit in the bottom of the oven are operated by a single hydraulic action control that automatically cuts out the broiler unit when desired baking temperature has been reached. Both broiler and oven units have individual pilot indicator lights. The oven is insulated with from two to three inches of fiberglass.

The six-quart, seven-heat Scotch Kettle, another feature of all Kelvinator models, provides a unit in which entire meals can be cooked at very low cost, the company said. It permits the use of inexpensive cuts of meat, and has adequate heat for deep fat frying.

FASTER PULL-DOWN

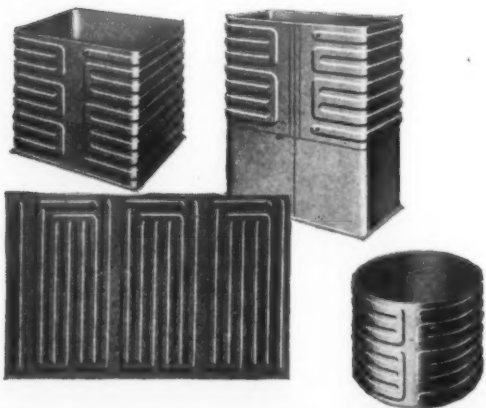


THE high rate of heat acceptance of Stangard Cold Plates is made possible by their "Prime Surface"—there is no intermediate factor between refrigerant and contact surface. Thus, the refrigeration circulates directly under the plates in one continuous pass.

The faster pull-down resulting from the rapid heat acceptance makes for maximum refrigeration efficiency with minimum expense in maintenance and operation.

Whether for locker plants...display cases... food counters...soda fountains...trucks...liquid coolers...ice cream cabinets...farm milk coolers...farm freeze cabinets...frosted food refrigerators...beverage coolers...rivet chillers...or low temperature test rooms...specify Stangard Prime Surface Cold Plates!

THE STANGARD-DICKERSON CORPORATION
46-76 Oliver Street, Newark 5, N. J.



STANGARD PRIME SURFACE COLD PLATES

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LITTLE "STAN,"
THE STANGARD MAN



STANGARD KNOWS REFRIGERATION

EVOLUTIONARY IN ENGINEERING

THE COOLSTREAM CORPORATION

makers of COOLSTREAM ELECTRIC WATER COOLERS, wishes to thank the guests in attendance at the Private Showing held at the Hotel New Yorker in New York City, October 17, 18 and 19, for the ovation and acceptance given the new COOLSTREAM ELECTRIC WATER COOLERS.

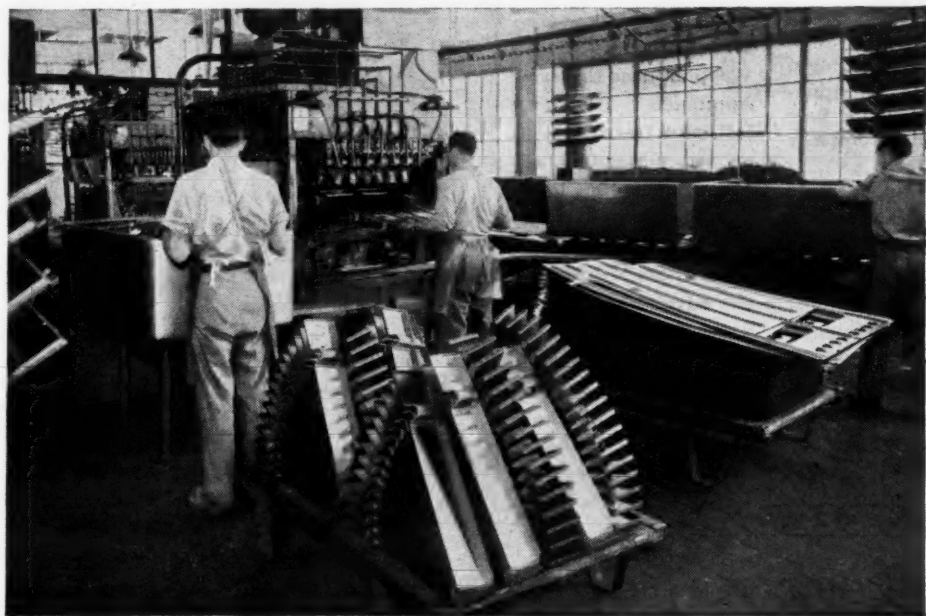
Franchises are now being allocated to qualified distributors. For consideration in the 1946 Coolstream distribution schedule, submit coverage, representation and other pertinent details.

SEND FOR CATALOG

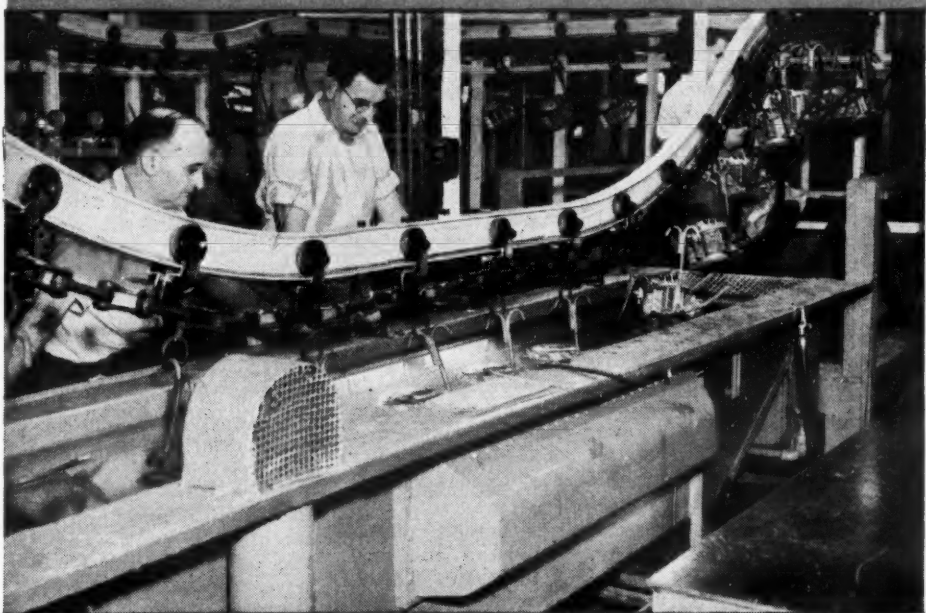


THE COOLSTREAM CORPORATION

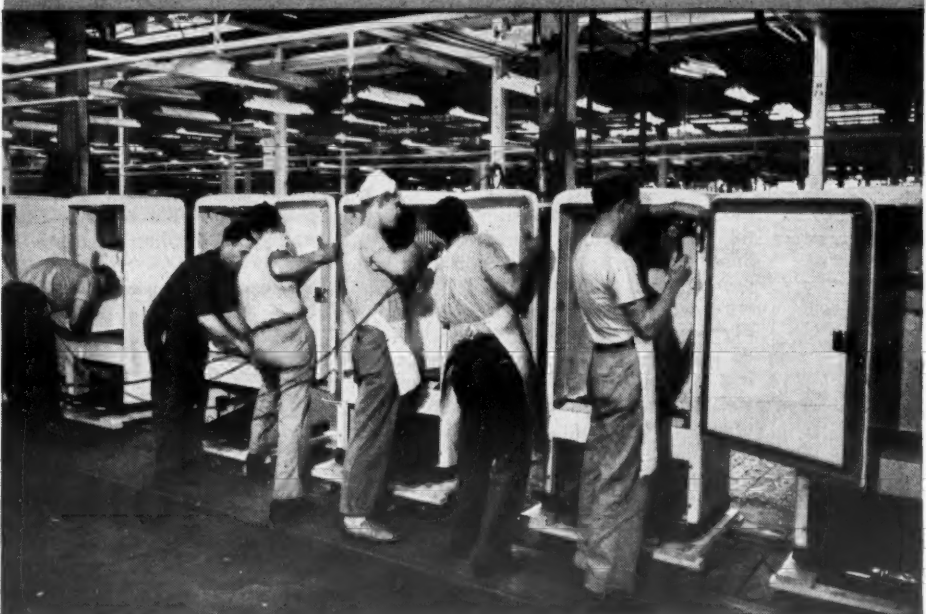
55 West 42nd Street • New York 18, N. Y.



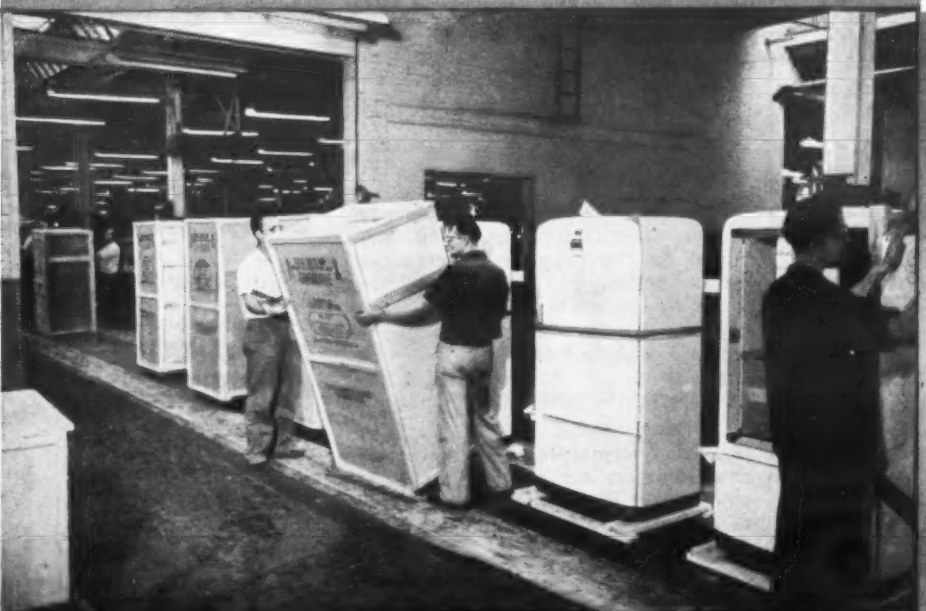
1 IN LESS THAN 3 MINUTES, this machine makes 126 spot weld points — and the back has been welded to still another Frigidaire refrigerator!



2 UNDER-WATER TEST! Meter-Misers, specially loaded for this test with air under high pressure, prove that they are air-tight and leak-proof.



3 COMPLETED REFRIGERATORS, with Meter-Misers already in place and operating, proceeding down the production line for their final testing.



4 READY TO BE SHIPPED to Frigidaire dealers...and then delivered to some of the millions of families that are in need of new refrigerators.

NOW ON THE WAY! ...Refrigerators and Ranges for Frigidaire Dealers

The pictures show, in part, how completely Frigidaire has reconverted to produce the refrigerators and ranges Frigidaire dealers need to take care of their customers.

But what these pictures cannot show is *how fast* these appliances are turned out. *How fast* Frigidaire changed over to peacetime production is better indicated by facts like these —

... Frigidaire's first "postwar" refrigerator came off the production line less than seven weeks after the official "go ahead."

... Within three weeks after the war ended, practically all the men and women taken off war contracts were called back to work on Frigidaire peacetime products.

Such speed of reconversion means more refrigerators, ranges, and other products that will be reflected in the profit record of Frigidaire dealers.

Even more important, in the long run, such reconversion speed indicates Frigidaire's mastery of mass-production methods — manufacturing "know-how" which will continue to produce the kind of *extra values* that mean *extra sales* for every Frigidaire dealer!

Look to Frigidaire for Leadership... through MANUFACTURING

FRIGIDAIRE
Division of
GENERAL MOTORS
DAYTON 1, OHIO • LEASIDE 12, ONTARIO

REFRIGERATORS • RANGES • WATER HEATERS
HOME FREEZERS • ICE CREAM CABINETS
COMMERCIAL REFRIGERATION • AIR CONDITIONERS
BEVERAGE, MILK, AND WATER COOLERS



5 ELECTRIC RANGES, entering this assembly line as empty shells, are completely finished products when they reach its end — ready to be put into operation.

Kelvinator Prices --

(Concluded from Page 1, Column 2)
f.o.b. there, except that freight costs on a delivery to the dealer in excess of 50 cents per hundredweight shall be paid by the distributor.

3. A distributor who, at a dealer's request, provides the consumer with delivery, installation, and first-year service may add the following top charges per refrigerator:

Brand and model No.	Additional charge which may be added
Kelvinator Leonard	Each
CS-7 SL-7	\$ 8.46
C-7 L-7	9.29
CD-7 DL-7	10.10
M-9 LH-9	11.61

4. If, upon request of a dealer, a distributor provides a consumer with whatever is necessary to meet the four-year warranty, he may charge \$5 per unit extra.

Frigidaire --

(Concluded from Page 1, Column 4)
ultimate consumers may sell at the following top rates:

Model No.	Zone 1 Each	Zone 2 Each	Zone 3 Each	Zone 4 Each	Zone 5 Each
BI-17-C	\$193.20	\$195.20	\$197.70	\$199.45	\$203.95
BI-60	234.68	236.68	239.18	241.18	245.93

All prices include the Federal excise tax but not local sales taxes. Prices on all sales to ultimate consumers include delivery, a one-year warranty, and installation, provided the latter requires only a connection needing no additional materials. Retail dealers may add \$3.50 if a range cord set is required and furnished.

Rennewanz Heads Sales Of Hotpoint Ranges

CHICAGO — Don W. Rennewanz has been appointed sales manager of the range division, Edison General Electric (Hotpoint) Appliance Co., Gregory L. Rees, manager, range and water heater sales division, announces. At the same time Hotpoint announced the appointment of four other men to new positions.

H. L. Cushing has been named district sales manager, Dallas, Tex.; Harold B. Cromleigh is the new district sales manager for the Philadelphia region; D. C. Risher, district sales manager, Charlotte, N. C.; and Samuel J. Houston has been named general representative for the Eastern region with headquarters at the company's New York office.

Mr. Rennewanz was formerly a range and water heater specialist in the Seattle sales district.

Proctor Electric Moves New York City Office

NEW YORK CITY—Removal of its sales office from 480 Lexington Ave. to 220 East 42nd St. here, has been announced by Proctor Electric Co.

Located at the new address will be Oswald MacCarthy, eastern regional sales manager; D. W. Thompson, New York district manager; and Mrs. Mary R. Riedel, director of the information center.

It was announced that the service department will continue at 420 Lexington Ave., under direction of Mrs. Laura Fleming.

Rotary Seal Expansion To Up Capacity 50%

CHICAGO—Rotary Seal Co. will have increased its productive capacity 50% when installation of new equipment is completed, company officials have announced.

The company's plant was almost completely destroyed by a fire several weeks ago. However, within a fortnight production was resumed in a large circus tent which Rotary Seal Co. officials rented to house the assembly and finishing departments.

Work was started immediately on rebuilding the plant, and in installing new machinery, which will result in the higher production rate.

The company achieved considerable publicity through using the tent to get back into production as quickly as possible.

Roy Beck Joins Staff Of Pressed Steel

CHICAGO—Roy Beck has been appointed ceramic engineer at the domestic appliance division of Pressed Steel Car Co., Inc., here, according to Ernest Murphy, president.

An enameling plant which provides for a full line of major household appliances, electric ranges, refrigerators, deep freezing units, and kitchen cabinets has been laid out by Mr. Beck.

Since receiving his degree in ceramic engineering at Ohio State in 1926, he has spent eight years with Westinghouse both in enameling operations and research.

Westinghouse Officials Inspect 1946 Ranges

As T. J. Newcomb, sales manager of the Westinghouse Electric Appliance Division, left, and Dean Fighter, superintendent of range production, look on, R. M. Beatty, manager of the range department, explains the advantages of the new fast heating Corox unit and the flush fit chromium plated trim ring that makes the unit easy to keep clean. Initial production of the 1946 Westinghouse ranges is underway and is centered on the new Champion model, a medium priced range.

**Westinghouse --**

(Concluded from Page 1, Column 3)
acceptance of the electric range as the home cooking unit, Mr. Beatty said that the public buying trend prewar was toward electric ranges, and that consumer surveys of the new markets ahead indicate sales volumes far in excess of prewar years.

"We anticipate," Mr. Beatty continued, "an increased sales volume in ranges because of the extensions of electric service to rural areas, and the convenience, cleanliness, and good cooking results with electric ranges have sold many new consumers on the merits of cooking electrically, thus further increasing the demand in existing markets."

Easily cleaned chromium plated trim accents the lines of the new range, and the new exclusive "Tel-A-Glance" switch knobs do away with the "billboard" appearance at the center of the range, declared Mr. Beatty. The new switch knobs indicate only the heat setting to which they have been turned, the others remain covered by the switch knob.

NEW COROX UNITS

These 1946 ranges are equipped with new Corox surface units designed for greater efficiency, longer life, and maximum economy, Mr. Beatty said, adding:

"The new surface unit will have five heat positions to insure the right heat for each type of cooking. In pan frying, for example, the housewife will set the switch at medium-high and be assured that she will get continuous heat for this type of cooking without the necessity of turning the switch to a higher and then to a lower heat to maintain the correct heat."

The unit is removable for cleaning and when replaced locks into the surface recess. The trim ring on the surface unit has been designed so that it fits flush to the surface which makes it easy to keep clean and improves the appearance of the range, he said.

"Simplicity of operation of the 1946 range oven is maintained through the single dial control for the oven," the range manager said. "This one dial when set for baking, roasting, or broiling temperature turns the oven on and sets the temperature for the type of cooking to be done, in one operation."

COOKING TESTS

The surface units, the deep well cooker, and the oven have been tested by the preparation of actual meals under the same conditions found in the average home by home economists in the Westinghouse Home Economics Institute under the supervision of Mrs. Julia Kiene, director of the Institute.

In such tests, Mr. Beatty explained, thermocouples or miniature thermometers are actually placed inside cakes, pies, potatoes, and vegetables so that the heat these foods absorb can be accurately measured. In addition the cooking utensils as well as the walls of the oven are checked with thermocouples to determine exactly the use and distribution of heat in the new Westinghouse range.

The utensils for the deep well cooker will be aluminum.

Control Price Increase May Be 'Passed Along'

WASHINGTON, D. C.—The industry wide price increase factor of 5% for automatic electric temperature control equipment approved by OPA may be passed along by the reseller, unless he is assembling some kind of a complete unit and is using the control as part of this assembly material.

That is the interpretation which the field has received from the OPA.

Through establishment of the increase factor, both manufacturers and resellers of automatic electric temperature controls for all heating air conditioning, and refrigeration except industrial processing controls may calculate their new 1945 ceiling prices by adding 5% to their prewar prices.

Resellers' present maximum prices are the highest prices they charged during March, 1942. Under OPA's action they may add 5% to these ceilings to obtain the new price.

Stephen Benn Forms Consulting Staff

PHILADELPHIA — Stephen J. Benn has started his own business as consultant engineer to develop postwar products under the company name of Stephen J. Benn Industries.

PURO ELECTRIC WATER COOLERS

BRANCHES IN PRINCIPAL CITIES
MAIN OFFICE
440 LAFAYETTE ST.
New York 3, N. Y.

PURO FILTER CORP. OF AMERICA

DRINKING WATER SPECIALISTS FOR 40 YEARS.

HEAT TRANSFER EQUIPMENT**MARLO COIL COMPANY**
SAINT LOUIS, MISSOURI

By comparison—
You'll buy **PAR**
REFRIGERATION EQUIPMENT
WRITE FOR CATALOG
Lynch
MANUFACTURING CORPORATION
DEFIANCE, OHIO, U. S. A.

ICE TRAYS AND GRIDS OF**Alcoa Aluminum****good salesmen because they have that CLEAN look**

Aluminum ice cube trays and grids look clean because they are. Housewives find it easy to keep "friendly-to-food" aluminum clean and sanitary. Put to work, they help

speed freezing of ice cubes and desserts. Aluminum carries off heat in a hurry. ALUMINUM COMPANY OF AMERICA, 1975 Gulf Building, Pittsburgh 19, Penna.

ALCOA ALUMINUM

they're here!

THE G-E "PACEMAKERS" IN REFRIGERATION!



LEFT

Look at these sales-soaring features of the G-E 7-foot De Luxe!

Generous storage space for frozen foods inside "Super-Freezer." Handy adjustable sliding shelf. Spacious 10.1-quart, high-humidity drawer. 550-cu.-in. fresh meat compartment. This G-E Model (JB-7) sells for \$188.25. All prices include Federal Excise Tax and Delivery and 5-year Protection Plan.

RIGHT

G-E's 7-foot Standard Model Has Many Popular Features!

Ample storage space for frozen foods provided by "Super-Freezer." Four freezing trays, 1 release lever. Glass chiller tray keeps beverages and meats at low temperatures. This G-E Model (LB-7) sells for \$151.50. All prices include Federal Excise Tax and Delivery and 5-year Protection Plan.

Here they are—and the opportunity is ready and waiting to turn big sales profits for you!

The new, immediately available G-E models now are off production lines—the 7-foot de luxe and the 7-foot standard—the models most eagerly sought today, as shown by exhaustive consumer surveys.

G-E for "Firsts"

Naturally *any* refrigerator line will sell just now. But isn't it wiser to make your best bid for the *future* as well . . . by handling, from this point on, the refrigerator line that's *best* for your business?

Remember—G-E was *first* to produce the all-steel (no wood parts) cabinet—finally adopted by the entire industry.

Remember—G-E was *first* to install the famous "sealed in steel" unit—later copied by others.

Remember—G-E's byword is *dependability* of performance year after year after year (over a million refrigerators in use 10 years or longer).

Remember—*Experienced* personnel plus *pioneering* in research—a G-E combination that has always meant the *best* in refrigeration *first*.

Let These Figures Point Up a Sales Moral for You

In producing refrigerators from 1927 to 1944, G-E reduced the unit weight from 202 lbs. to 62. It more than doubled refrigerating capacity. It more than halved current consumption. It increased the ice freezing rate by almost 5 times.

Other Big Advances Just Around the Corner

And now—watch for *new* G-E postwar models soon to be rolling to you. Models with ingenious new features and improvements. Models made *throughout* with G-E's customary care, skill, and precision. Models that simply can't help meaning spectacular sales for you!

For it's only logical that since G-E makes "the refrigerators that *most* people want *most*" . . . then G-E is the refrigerator that *you* want to sell *most*!



Refrigerators

"THE REFRIGERATORS MOST PEOPLE WANT MOST"

GENERAL  ELECTRIC

Chase Bank Credit Plan To Aid Utility Sales

NEW YORK CITY—Public utility companies will get help in the financing of sales of household appliances under a credit plan formulated by Chase National Bank. The bank said the plan applies both to companies selling directly and those which aid dealers to finance appliance sales.

Consumer credits will be handled by the companies' own billing and collection departments. Chase's plan provides for establishment of credit permitting advances up to a dollar amount specified in the credit, without commitment fee, obligation to borrow, pledge of instalment paper, or promissory notes for advances.

Credit users will be required to hold instalment paper unencumbered and to report monthly on the total amount of paper owned and other information. Qualifying paper is defined as "any evidence of indebtedness payable in not exceeding 48 equal monthly instalments, of which not more than two monthly instalments are in arrears."

Unless cancelled or voluntarily terminated, the credit is automatically renewable. A company may elect to use all or any part of available funds.

Mitchell Now Sales Manager

HAMILTON, Ont. — L. F. A. Mitchell is the new sales manager for Canadian Westinghouse Co., Ltd., here. He was formerly assistant to the vice president in charge of sales.

Demand for Goods Has More Than Doubled in Past 3 Years, Says Chicago Mart Head

CHICAGO—A tremendous increase in the expressed demand for home-furnishings between 1943 and 1945, the latest figures available, was cited by John C. Goodall, general manager of the Merchandise Mart, as an indication of the strong market facing the industry when reconversion is completed.

Furthermore, recent surveys indicate that this demand is based on genuine urgent needs and consequently does not represent an inflationary trend, he explained.

Among the factors contributing to this market, Mr. Goodall listed: 1,000,000 new homes a year in the 1947-1951 period as predicted by Hugh Potter, U. S. Coordinator of Construction; a demand for the replacement of worn home-furnishings; large amounts of available cash put aside in savings and war bonds; a 16.6% increase in new families.

He cited these figures on appliances alone as released by the U. S. Census Bureau and the U. S. Chamber of Commerce, for the years 1942 and 1945, as an indication of the tremendous increase in demand:

	1945 Estimate	1942 Estimate
Mechanical		
Refrigerators	5,852,000	2,625,000
Vacuum Cleaners	4,500,000	1,400,000
Sewing Machines	3,450,000	840,000
Radio	5,085,000	2,555,000
Electric Irons	5,195,000	1,505,000
Washing Machines	5,835,000	2,100,000

The percentage demand in the

other industries in the home-furnishing field for replacement of worn home-furnishings show a substantial increase although not as large as in the appliance industry, he said.

With nearly all of the home-furnishings industries occupied in war work for the past four years, a steady demand for new goods has been built up, Mr. Goodall declared. "This demand, coupled with high war time wages, and the increase in families setting up homes of their own offers a potential market to manufacturers and retailers that will be felt for many years to come."

Harry Hahn Joins Staff Of N. Y. Publisher

NEW YORK CITY — Harry C. Hahn, formerly Philadelphia district manager for Carrier Corp.'s dealer division, has been appointed marketing director of *Electrical Merchandising*, announces H. W. Mateer, publisher. He will be in charge of the publication's marketing and research activities.

Prior to 1933, Mr. Hahn was with Easy Washing Machine Corp., and before that he had held the positions of division manager, public utility manager, and sales manager for the Premier Division of Electric Vacuum Cleaner Co., Inc.

Until recently he was secretary of the Philadelphia section, A.S.R.E.

Joins Frigidaire



C. J. PRASHAW

Prashaw Heads Frigidaire Range & Heater Sales

DAYTON, Ohio — Recent appointment of C. J. Prashaw as manager of range and water heater sales for Frigidaire Division of General Motors Corp. has been announced by H. M. Kelley, appliance sales manager.

Mr. Prashaw came to the Frigidaire staff from the Hotpoint organization where he was refrigerator specialist and district sales manager for several years.

Mr. Prashaw's experience in the field dates back to 1919 when he was employed as appliance sales district representative for the Bartlettville (Okla.) Gas & Electric Co. following his release from the Army. In 1928, he was appointed commercial manager of the Missouri Power & Light Co. at Jefferson City.

Westinghouse Restyles Complete Line of Traffic Appliances

MANSFIELD, Ohio—Restyling of the complete line of traffic appliances made by the Westinghouse Electric Appliance Division, is announced by Ralph Z. Sorenson, manager of traffic appliances. The new designs will appear on the market early next year.

Lurelle Guild, nationally known industrial designer, is acting as consultant in the restyling program which has been underway for a year and a half. According to Mr. Sorenson, the new styling will take the "kitchen and breakfast room" look away from the traffic appliances and put them on par with the finest work of silver craftsmen.

A newly designed coffee percolator will be among the first of the table appliances to appear on the market. "This item has been restyled along Grecian lines with curved surfaces and a small rolled and leaf motif accentuating its classic design," Mr. Sorenson states. Other appliances will be redesigned in a related manner.

Mr. Guild, who is working very closely with Westinghouse engineers in the creation of the restyled designs, is a winner of the Art Director's club medal and the Arents medal from the University of Syracuse for design achievements of consumer-use items.

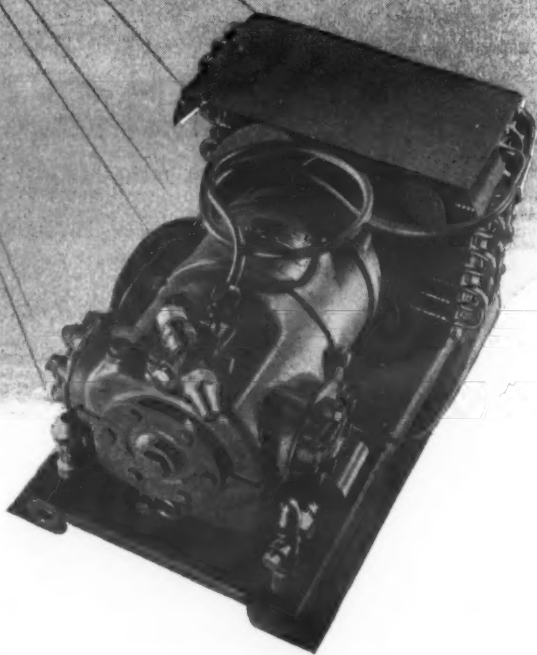
Lasner Returning to Anchor

PITTSBURGH—S. I. Lasner, following discharge from the Army, is expected to return soon to Anchor Distributing Co. here where he was sales manager for eight years. Mr. Lasner served two and one-half years and just recently returned from Europe.

Mills direct drive compressors

TOMORROW, YOUR CONDENSING UNITS WILL BE

more efficient



Delivering the efficiency of conventional belt-driven units, and saving weight and size over hermetics, the Mills Direct Drive

Compressor* is unequalled for cabinet installations.

* May we send you complete specifications and details—and discuss future requirements with you?

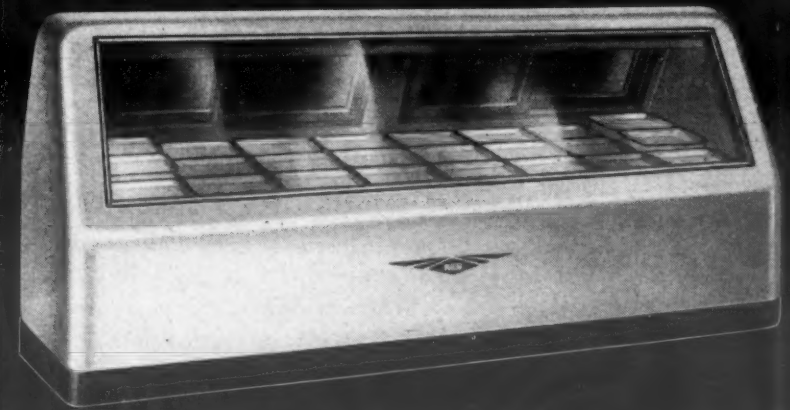
MILLS

Industries, Incorporated

Refrigeration Division

4100 Fullerton Avenue • Chicago 39, Illinois

"SHERER EQUIPMENT HAS ALWAYS MEANT Profits FOR ME... YOU BET MY NEXT BUY WILL BE A SHERER!"



YOU CAN COUNT ON SHERER FOR QUALITY!

Thousands of satisfied SHERER owners are looking forward to the day (soon now) when they can get the new Sherer equipment they need for the *bigger and better* business they have long planned. For all of them SHERER equipment has always meant *newest design, efficient performance, and economical operation.*

Sales to merchants like these are in store for Sherer distributors—who are assured of a full line, of finest quality, at prices that will bring them **VOLUME and PROFITS.** That's why we say, "Smart are the distributors who plan to go ahead with Sherer!"

SHERER

REFRIGERATOR PRODUCTS

SHERER-GILLET CO., Marshall, Mich.

Inside Dope

By George F. Taubeneck

(Concluded from Page 1, Column 1)

text, only by insuring greater production per worker—something that has been achieved steadily in the United States over the past 100 years by the use of investment, horsepower, and production aids.

In the year 1849, output per factory worker was \$485. The average yearly pay was \$248, and there were 957,059 workers in factories. In 1879, the output per factory worker was \$723, the year pay was \$346, and the total factory employment had risen to 2,732,595. But in 1939, factory output was \$3,100, yearly pay was \$1,150 and 7,886,567 factory workers were employed.

During approximately the same period, the total of workers employed by other trades went up from 3,637,764 to 23,028,421.

Horsepower and investment of themselves were not sufficient to work this miracle. The real "invention" that brought the change about was the corporation—which brought together capital from many investors and supplied the materials, power, tools, management, research, advertising, and salesmanship to enable workers to make the most of their labor.

The value of special distribution and production aids is demonstrated by comparing a large automobile corporation with the average American factory.

With approximately the same investment per worker, the net output per worker of the average American factory in 1939 was \$3,100, as compared with \$4,530 per worker in the case of the automobile company—while the average wage in the typical factory was only \$1,150, and that in the auto plant was \$540 higher.

In order to create 8,000,000 new postwar jobs, we must create some 2,000,000 additional factory jobs.

At an average investment of \$6,000 per factory worker, says Mr. Davidson, this will require \$12,000,000,000 investment—five times the total new investment in American factories during the entire seven prosperous years from 1922 to 1929.

This can be done, he declares, only if Federal tax laws are changed to encourage job-making investment. In the words of the author:

"First, we must remove the double tax or greatly reduce the present high taxes on corporate income, and, second, we must cut present sky-high surtaxes on personal income.

"Only by taking these two steps can we hope to draw into our postwar factories the record-breaking amount of new capital needed. And only in that way can we hope to renew our forward march from more investment to more production, to higher pay, to greater buying power to increased jobs, and prosperity for all of us!"

Canned Snake Meat

Canned snake meat will soon be back on the market.

Ross Allen, snake and wild-life expert, Silver Springs, Fla., has purchased for an estimated \$1,000 the rattlesnake canning business plant at Rattlesnake, Fla., and goodwill of the late George K. End, who died from snakebite last year.

He expects to produce 250 five-ounce cans of snake steaks a day in a modern canning plant to be erected next to his venom laboratory in Silver Springs.

Good luck—and happy immunity—Ross!

Decontrol: WPB vs. OPA

The War Production Board is to be congratulated on the speed with which it is removing production controls.

Particularly gratifying is the quickness with which it has taken limits on the number of radios, refrigerators, stoves, electric fans, trucks, and a long list of other items which manufacturers are permitted to produce.

One executive order issued by President Truman directed the WPB, among other things, during the transition to "limit the manufacture of products for which materials or facilities are insufficient."

But it is good to know that the WPB apparently intends to use this particular power sparingly, and to

give the benefit of the doubt to the manufacturer.

It is of the first importance that we achieve the maximum production of all items wanted by consumers. In a peacetime economy the best way to distribute a limited supply of materials and facilities is not by Government allocation but by competitive bidding in a free market.

The WPB's orders canceling hundreds of individual controls underline once more how far that agency has moved ahead of the OPA in the process of decontrol.

The OPA's reconversion price policy threatens to hold back civilian production just at the moment when we are faced with large-scale unemployment, and can afford no delays whatever. Removal of the controls on wages only aggravates the injury that the OPA's reconversion price policies can cause.

If peacetime production is to be

resumed with the necessary speed, and if the men and women being laid off from their wartime jobs—plus millions of returning veterans—are to be reabsorbed into that peacetime production without dangerous delays, the OPA must make its reconversion price policy either more flexible and realistic, or abandon it altogether.

Particularly in the refrigeration industry does the OPA seem to be an anachronism. In this most competitive of all industries, nobody can get away with an excessive price for more than a day or two.

The Wrong Prospect

Without comment, we quote the following verse from *The Detroit Free Press*, written by the beloved Edgar A. Guest:

Strange things to me the postman brings.
Not long ago a letter came
From Youngstown, O., to let me know
That mine was a "selected name."
The missive ran: "You're just the man
For tasks the post-war years will bring.

We've chosen you to join a few
To train for air conditioning.

"In moments spare you can prepare
And keep your present job the while.

You'll quickly learn more wage to earn
With wrench and driver, plane

and file.
We'll gladly show how blowers blow
And rooms are given the touch

of spring.
With brace and bit you'll soon be fit
To service air conditioning."

Dear friend, dear friend! These
lines are penned
In answer to your offer kind.

I grieve to state it comes too late.
Mechanically I'm not inclined.

It seems a shame you chose my name.
At no one's doorway could you ring

And chance to find so dumb a mind
To study air conditioning.

Hotel Market

"Hotel equipment has been taking a terrific beating since 1941," declares Detroit's J. E. Frawley, who is president of the American Hotel Association.

"And to prepare for a return to normal, the nation's hotels will spend better than \$400,000,000."

Rehabilitation and repair account for nearly half of the planned expenditures, but remodeling, redecoration, and new service facilities loom large in the plans.

Grandeur will give way to efficiency. Waste lobby space will be converted into shops for added revenue and the convenience of guests. Two-story lobbies will be cut down to provide usable floor space on the mezzanine level.

The formal dining room in many instances will be supplanted by coffee shops and lunch rooms.

Guest room decoration will tend towards the studio type which can double for a living room during the day. Guest room radio reception will be the rule, television sets will be introduced and better room lighting is certain.

Air conditioning will be hotel-wide, particularly in the South.

Public address systems will replace personal paging in many smaller hotels, and escalators may be installed for raised hotel entrances.

And refrigeration?

THIS USER KNOWS



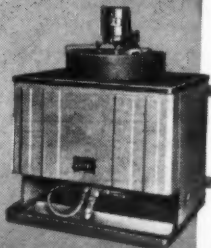
Max Weisberg of Jo-Mac Super Market, St. Louis, Missouri, says—I have used an AMCOIL FOOD CONDITIONER in my cooler for some time and know it helps to retain the natural freshness and bloom of the meats. I have never had any losses through trimming of meats, thanks to AMCOIL'S definite control of humidity which practically eliminates dehydration and shrinkage.

UTILITY DOWN-DRAFT UNITS

Specially designed to meet the demands for a compact, efficient, wall-mounted unit.

Model	BTU/HR	List Price
UD-7	1,350	\$ 89.00
UD-17	2,250	99.00
UD-27	3,000	109.00
UD-37	4,200	129.00
UD-47	5,400	149.00
*UD-57	7,800	169.00
*UD-77	11,000	209.00
*UD-127	15,000	319.00
*UD-167	23,000	349.00

*WITH HEAT EXCHANGER
Expansion Valves and Controls not included in list prices.



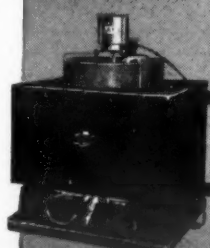
AMCOIL NOW FEATURES

The new moderately priced utility cooling units, namely:—

The UDF Food Conditioners for preservation of fresh and perishable foods where the control of high humidity is a factor, and the regular UD models for the storage of package commodities.

UTILITY FOOD CONDITIONER

A low-priced unit which ideally supplements the Amcoil Deluxe model.



Model	BTU/HR	List Price
UDF-19	1,950	\$139.00
UDF-29	2,700	149.00
UDF-39	3,900	179.00
UDF-49	5,300	199.00
*UDF-59	7,500	219.00
*UDF-79	10,700	239.00
*UDF-129	14,000	374.00
*UDF-169	22,000	434.00

*WITH HEAT EXCHANGER
Humidifier included in list prices; valves, controls, etc., extra.

Streamlined, wall-mounted, down-draft unit for back-bar or under-counter coolers, reach-in and walk-in boxes. A space-saver supreme! Field-tested, and consumer-acceptance proved!

JOBBER-DEALERS
investigate these latest
AMCOIL profit makers

Big sales opportunities for dealers in this low-priced unit that combines many features of the De Luxe Food Conditioner. For high relative humidities up to 85%, and temperatures down to 36° F.

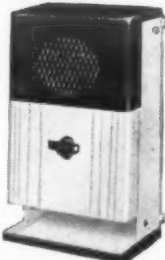
STEP UP YOUR SALES AND PROFITS WITH THESE NEW AMCOIL MODELS

DE LUXE FOOD CONDITIONER

A complete refrigeration system, except for condensing unit, which automatically preserves food without dehydration or shrinkage in Reach-In and Walk-In Coolers.



Model	BTU/HR	List Price
FC-50	7,500	\$233.00
FC-80	11,300	378.00
FC-130	17,000	601.00
FC-160	22,600	641.00



ALSERVICE REACH-IN PANEL UNIT

A compact cooling unit for all refrigeration applications. Designed to meet a growing demand for medium-capacity units to balance condensing units of 1/4, 1/2, or 3/4 hp. Especially suited for reach-in and small walk-in boxes where temperatures of 36° F. are required.

Model	BTU/HR	List Price
RI-15	2,000	\$ 94.00
RI-20S	3,600	129.00
RI-25	2,250	99.00
RI-30	3,000	114.00
RI-40	5,250	149.00
RI-45	6,150	169.00

CEILING MOUNTED TWO-WAY MODEL UW UNITS

Discharges cooled air in two directions distributing it evenly over entire cooler.

Model	BTU/HR	List Price
UW-25	2,500	\$129.00
UW-35	3,500	160.00
UW-45	4,500	190.00
UW-55	5,500	204.00
UW-75	8,000	235.00

DISTRICT OFFICES

Philadelphia Office: M. H. McTurk, Mgr.
Chicago Office: H. C. Moore, Mgr.
3510 Spring Garden Street 215 W. Ontario Street

MANUFACTURERS' REPRESENTATIVES

J. J. Madden, 212 Madison St., Dedham, Massachusetts
William D. Keefe, Chaffee, New York
E. J. Oliphant & Co., 505 Uhler Bldg., Marion, Ohio
Jordy Engineering Co., Inc., 813 Howard Ave., New Orleans, La.
Robbins-Greenwood Co., 3104 Main St., Houston 4, Texas
Ernest Darwin Corporation, P.O. Box 2654, Charlotte 1, North Carolina



AMCOIL

AMERICAN COILS CO.

25-27 LEXINGTON STREET - NEWARK 5, N.J.

How Appliance Dealers In Middle West Are Preparing for Sales

Stix-Baer-Fuller of St. Louis to Move Appliance Department to Separate Bldg.

ST. LOUIS — Something "entirely different" in major appliance merchandising is promised in the postwar plans of Stix-Baer-Fuller, here—now completing a new two-story building across the street from the main store, in which all appliance promotion will be carried out.

Formerly selling one of the state's leading refrigerator volumes from a cramped position amid fifth-floor housewares shops, Stix-Baer's appliance management has made up its mind to solve the space problem with the separate building.

"Appliances make up one of the most important departments in the store," said E. B. Collier, major ap-

pliance buyer, "not only for the immediate postwar period, but for years to come, when we will be concentrating on complete all-electric kitchens and all-electric homes. Therefore, instead of attempting to fit them into the narrow spaces possible in our already overcrowded store, we will give them all the advantages of a building designed specifically for the job.

There will be plenty of dramatic showmanship and efficient presentation in the new building, which occupies the 7th and Washington Ave. corner across from Stix-Baer's main entrance. With nine large display windows of 10 x 8 ft. dimensions, the

whole first floor is actually a "display window."

On the ground level neat mass displays of three refrigerator lines, five of ranges, four of washing machines, and similarly diversified supporting appliances will be shown. There will be a salesman's office equipped with extra telephones for prospect contacting, a credit office for time payments, demonstration rooms for home automatic washers, soundproof rooms for radio and phonograph presentation, and many other advanced ideas.

Trunk electric wiring of high load capacity will make it possible to have every major appliance actually operating—"live displays" which go a long way toward clinching home appliance sales. Comfortable furniture for customers, sales desks, and convenient facilities for handling a dozen customers at a time will add attraction.

On the second floor Stix-Baer plans to operate a number of complete model kitchens, including all-electric, all-gas, and combinations. Complete planned kitchens from \$700 to \$1,500 will be aggressively merchandised all the way, according to Mr. Collier, and the store will handle cabinets, dishwashers, sinks, worktables, and all essentials compactly grouped in this building.

"The old store setup featured one model kitchen," he pointed out, "but this was badly located amid the china and picture departments, so that it was almost impossible to give cooking and appliance demonstrations. With our new store layout, it will be possible to give several such

Kansas City Juke Box Distributor Opens Modern Store To Handle Appliances

KANSAS CITY, Kan. — An erstwhile juke box distributor here may be one of the heavy competitors for refrigeration, and other appliance business in Kansas City, Kan. Harry J. Brown has opened up a new store, known as the Brown Music Co., because records are one of the firm's leading lines, which will have one of the most attractive appliance salesrooms in the Greater Kansas City area.

First floor of the store, which was opened in July, 1945, is devoted to a specially designed display of phonograph records, and is one of the most modernistic record shops in the area. But the upstairs has been completely remodeled into a salesroom for all sorts of electrical appliances.

From the response to the series of "registration advertisements" the firm has sponsored in local newspapers, asking people to come to the store to register for appliances, it is evident that the firm can expect an overflow of business for refrigerators and other appliances.

The new firm has set up a well-formulated advertising campaign to exploit the lines of merchandise that

will be carried, and included are "spot" advertisements on some of the regions' outstanding radio stations. These announcements will publicize the electrical products as well as the record department.

From the manner in which the record sales force has performed, it is evident that Harry Brown likes experienced employees who respond to the special training which the firm offers each person that joins the staff. "Suggestive selling" has been used effectively in selling phonograph accessories, with each clerk carefully trained to ask a record buyer if he has other needs in the phonographic line. This same policy will be carried over into the appliance department as soon as it begins to function.

An important phase of the new store's operations will be a completely equipped, and skillfully manned service department. A staff of service men was maintained by Mr. Brown when he operated his juke box business, and some of these will be retained in the present set-up since they have demonstrated a proficiency at repairing refrigerators, radios, and other electrical appliances.

demonstrations at once, and to show the interested prospect planned package kitchens in every price range, depending on the cabinets and extra appliances involved."

With the model kitchen drive Stix-Baer will offer services of an expert who will go out to the prospect's home, estimate all costs for remodeling or installation, and offer a "package job" at a flat price for a 100% efficient kitchen. Arrangements have been made with allied manufacturers for "tailored" cabinets and work surfaces—so that higher surfaces can be provided for the tall woman who demands them, etc. Since complete kitchens are the major theme in the new store, every contact leads eventually to a visit to the second floor model kitchen displays.

Sales management likewise will be completely changed. "We will use both inside and outside sales meth-

ods," Mr. Collier outlined. "With up to 25 salesmen on the staff when we hit our expected peak during the next 18 months. The outside men will represent the store on an individualized basis, and follow up on every sale of each new appliance once every three months—both as a store courtesy and to gain new prospect leads.

"This will be a selective system which does not entail any door to door canvassing. Instead each man will work primarily on 'hot leads' furnished by already-sold customers."

The store will not handle trade-ins on a general basis, although there will be complete shop facilities for repairs and warranty maintenance. A crew of expert mechanics kept up through the war will be expanded with the return of service men to St. Louis, many of them already "in the fold" and awaiting discharge.

.... MODERN
EFFICIENT
ECONOMICAL
REFRIGERATION

DOLE

Largest Manufacturers
of
Plate Type Evaporators

DOLE

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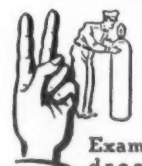
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2. Examine the hydrostatic test date which should be within the prescribed 5 year period. If last test was made more than 5 years ago, send the cylinder for retest to a refrigerant manufacturer or an agency authorized to conduct such tests.



3. Open valve to remove any residual pressure. Remove valve, weigh the empty cylinder; fill completely with water and reweigh. Deduct empty cylinder weight from water-filled weight to obtain net weight of water.



4. Calculate the approved maximum filling capacity by multiplying the net water weight:

- by 1.25 for SO₂,
- by 0.75 for Methyl Chloride
- by 1.19 for "Freon-12"
- by 1.05 for "Freon-22"

Caution: Be sure cylinder is clean and dry before refilling with refrigerant.

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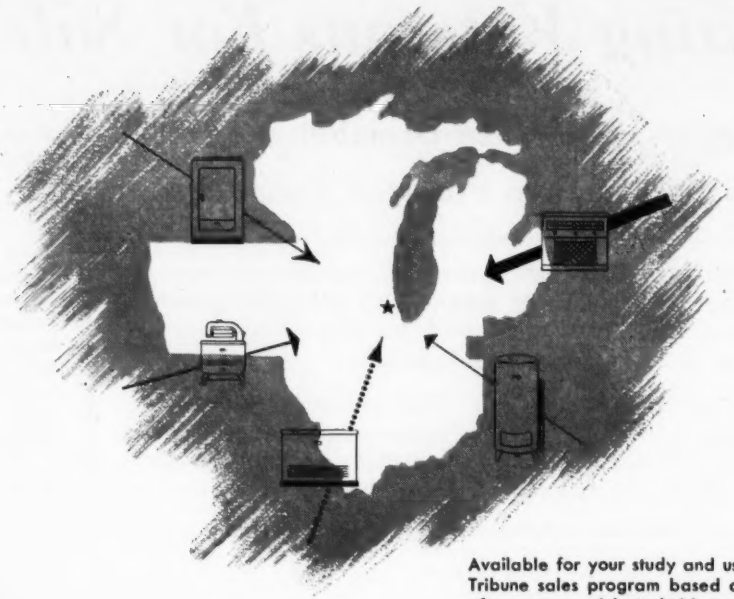
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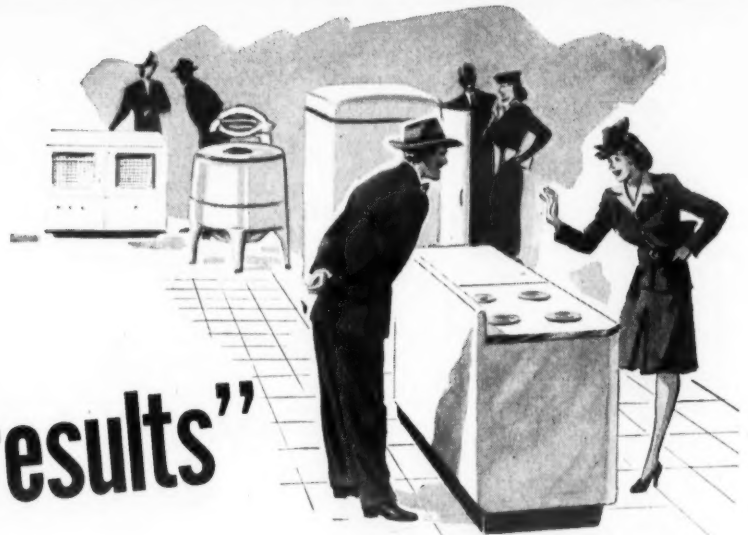
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Electrical Leagues Report Progress In Recruiting Veterans For Sales Work

Greater Need is Seen When Demobilization Hits Peak; Sales, Trade-In Problems Loom Up

The following report covers three discussions on sales—a most vital issue in the industry today—with pertinent questions and answers that followed each one, as given at the recent meeting of the nation's electrical leagues in Chicago.

Other talks that brought up other points of parallel interest—adequate wiring activities, commercial and industrial markets, service training, frequency modulation and television futures—will follow in subsequent issues of the NEWS.

By Ross Potter

CHICAGO—Jobs for veterans, and the industry's increasing need for sales emphasis, were the nucleus of discussion at the tenth annual conference of the International Association of Electrical Leagues, held Nov. 1-3 at Chicago's Morrison hotel.

More than 50 executive officers and key men representing leagues throughout this country and Canada heard the facts on business opportunities for the industry, and for thousands of men returning to it from the armed forces, presented by authorities in the field. Of major interest to selling were the three talks reported in this article.

Officers elected for the coming year are: president, Victor W. Hart-

ley, managing director of the Pacific Coast Electrical Association, Inc., Los Angeles; vice president, W. H. Hills, managing director of the Electric Institute of Washington, D. C.; retained as treasurer, John A. Morrison, of the Electrical Association of Philadelphia and again as secretary, O. C. Small, manager of the business development department of NEMA, New York City.

The work of the Veterans' Re-employment Program began last year, said R. C. Hill, of the National Electrical Wholesalers Association, in outlining the work being done by NEWA and the Edison Electric Institute toward helping men get jobs. Promoted through local organiza-

tions and varied according to local conditions, he reported, the program has been carried on through the agency of the electrical leagues, through veterans' organizations and local chambers of commerce, and through various other groups.

The return of men from the armed forces has been a necessity in the appliance, apparatus, and supplies field because of the need for salesmen, service men, repairmen, engineers, and others with technical training, Mr. Hill pointed out.

Successful operation locally usually has followed a pattern including the following four steps:

1. Developing the cooperation of local industry.
2. Stimulating interest in the veterans who are seeking jobs.
3. Arranging for the distribution of applicants for employment throughout all branches of the electrical industry.
4. Having localities exchange all information and data about applicants, thus effecting maximum employment possibilities.

N.E.W.A. Has 'Hiring Kit'

A basic sales training program also is coming up, sponsored by NEWA and EEI, he said. Using movie trailers, educational films, charts, texts, and laboratory sessions. Again, it will work with local electrical leagues wherever possible.

It will follow the idea of finding the right man for each job, Mr. Hill outlined, and will present its material with the idea of "selling selling."

Its facilities will include two hiring kits, one set up for the wholesaler and another for the retailer. The kit will be a guide for interviewing, testing, hiring, and training each individual candidate.

The conference's procedure of following up each talk with an open question and answer forum brought out the following:

Mr. Hartley: "I know several league managers here who have carried on this program in their own cities. Will you speak up, please."

S. E. Strunk, secretary of the Electrical League of Cleveland: "We took a survey of our league members—utilities, jobbers, contractors, dealers, and the like—on questions of how many men they needed, for what specific jobs, and how much they planned to pay them."

"The response showed about 100 jobs open. Then we sent groups or committees to the hospital relocation center in Cleveland, and to the veterans' administration there, to give them this information on our own needs and requirements. From this start, a considerable number of veterans already has come in."

Candidates Know Little of Job

Q: "Do extra men have to be assigned in working out the program?"

Answer from A. A. Gray, manager of the Electric Association of Chicago: "Many demobilized men want to go into business here, we have been informed by them and by organizations representing them. Our present staff has its hands full, and we found it necessary to add two men to take over this veterans' employment work. A budget increase for the next three months will make this a permanent department, for as long as needed."

"We have found one thing worth pointing out, though: that candidates for selling, or for dealerships or distributorships, so often are ignorant of what the job really requires. So much so as to make them completely untrained for it."

"It will be possible to train them, of course, but even that possibility has been held up by a lack of clerical help, which few of them wish to go into, by a printers' strike that has bogged down our sales literature for eight weeks, and by our own feeling of the need for caution in developing the program for them, in order to do a good job."

Ralph Neumuller, executive vice president of the Electrical & Gas Association of New York: "The program has been going for about three and a half months in New York. Of 100 veterans that have come to us, only seven have fitted into jobs. Not one of them had any sales experience. "The rest found the prospect of

taking small wages hard, even as a prerequisite to learning and getting into business. Most of these men are attracted to big name companies, but without experience for the work these companies can supply."

"Perhaps larger numbers of them, as time goes by, will give better percentage figures, but at the moment they don't seem anxious to settle down. It hasn't been because we haven't taken the time or the patience, I believe. We talk to each man personally, in terms of what he has done and what he wants to do. And we have kept our local employment agencies posted on our needs. The Veterans' Program is needed."

Q: "How about contacting the draft boards. Has that been tried?"

Mr. Sampson, of the Electric Institute of Washington: "For the last four weeks our local draft boards have been working with us on this, screening out the ineligible on their end, and sending the qualified ones to us."

"We interview the men they send down—but we've found that only about 10% of the 300 veterans coming in every week are really looking for jobs. And not all of them, of course, are qualified for the electrical industry. For instance, of the first 35 men that came in, only three went to work for us."

"But the draft boards are doing a good job. This is no reflection of the job they're doing. We send them new lists every two weeks, and they expect to continue this work as long as the need is present. They consider this activity as important as conscripting men was three years ago."

H. M. Silling, acting secretary of the Electrical League of Charleston, W. Va.: "In Charleston, the screening is done by our Chamber of Commerce. The league cooperates with them, supplying the materials needed. The program is just beginning there, but it's off to a good start."

Demobilization Peak Soon

Mr. Small: "Latest census figures show 106,000 people idle as against 70,000 jobs open. The jobhunting flood will be even higher when people get hungrier. At the moment, you'd think \$20 compensation doesn't look like much, but when takehome pay is whittled down by deductions to \$25 or \$30, a lot of them would rather take it easy for a while."

Mr. Hills: "You ain't seen nothing yet. Selective Service in Washington believes that demobilization won't hit its peak until February, 1946. If that's so, this is hardly a temporary program. Interchange of information between leagues can do an awful lot to equalize the balance between unemployed veterans and jobs that are open. This must work as a national program for full effectiveness."

P. J. McMillan, secretary of the

(Continued on next page)



Customer: "What's going on here?"

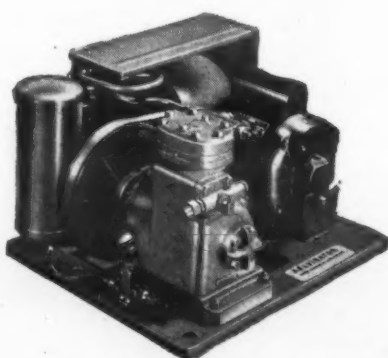
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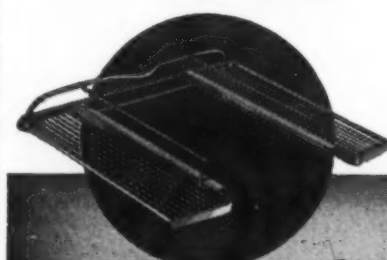
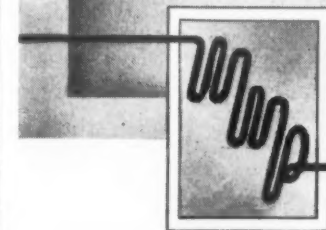
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Intensified Training Methods Urged For Field Salesmen

(Continued from preceding page)

Electric League of Chattanooga, Tenn.: "60,000 people went into the armed forces from Hamilton County alone. Of these, 13,000 already have come back. But although almost every one was a worker before the war, only 14% have taken jobs."

"An estimated 13% are disabled, although few of them are unemployable. But as a maximum figure that still adds up to only 27%. If it's because they can't find the work they want, that leaves us a big job in getting ready for the 47,000 still coming. But we're getting good co-operation; 46 draft boards in and around Cincinnati are working with us."

J. R. Guidroz, secretary of the Electrical Association of New Orleans: "The New Orleans league is just starting to get under way, but we do know that 60 men are needed in the utility's sales department alone. And a flood of candidates has come, but few are the right kind."

"Of the first 200 to come in, only one man was hired. The average has now hit 200 a week during the last month, and of the 48 of those that seemed possibilities, eight were hired; so the program is getting into high gear."

"We still need to work more closely with the veterans' administration, to get them to screen out the unuseable men. It would make it easier for us, and a lot easier for the men looking for jobs, because it's disappointing to talk to a man who might give you a job, and then not get it."

A. H. Kessler, of the North Central Electrical Industries, Minneapolis: "Using the questionnaire and poster idea, Minneapolis has pooled statewide association figures to get a picture of the unemployment conditions in other cities."

Few Want to Sell

"Veterans coming in for interviews are talked to by ex-service men, and as much as possible put at ease. We keep a card file of the results. But few of them want salesmen's jobs. They want security, and they want to stay in the big cities. Rural areas and smaller communities have suffered the greatest electrical manpower shortage during the war, and apparently it's still going on."

These were the chief points brought out in the discussion, which was summed up by the morning's chairman, W. A. Ritt, secretary-manager of the Minneapolis league, as follows:

1. Getting into action now is fundamental, but be cautious against overextending your organization before you are ready to handle the job. Ask other agencies to work with you, screening men against sending out unqualified candidates.
2. If you have made no initial job survey, there's no point in contacting returning servicemen. You won't have enough data to offer them.
3. Job surveys should be exchanged between associations toward equalization of the jobs-jobless balance.
4. The load is light so far. The available manpower total apparently will be highest early next year, probably in February.
5. If this program is set up on a sound basis, our industry can get the best men, and get them first.

The steps taken in training salesmen to sell a particular product were outlined to the conference by

Norwood D. Craighead, merchandise service manager for Bendix Home Appliances, Inc., at South Bend, Ind.

How to Train and Keep Salesmen

The sales fraternity is the only group that produces 50 or 60 million jobs, he said. Industry has reached its high gear in manufacturing techniques, but sales techniques are far behind.

The postwar cumulative market will not last long, he warned. An industry that faces an automatic market cannot coast for very long; good stiff competition is only a few months away, and the time to get ready for it is now.

Mr. Craighead then proceeded to outline the sales training program tested and held to by his own company. It is divided into two major

sections, he said: Selling the salesman on the product itself, and then teaching him to sell it.

The first step is necessary because good salesmen are going to be bid for by the various selling organizations as vigorously as shortage merchandise is now hunted on the consumer market. When your salesman is one of the 20% in any company that sell 80% of the goods, then other companies will want him, too.

You will need more than money, he said. You will need his belief in the product he is selling, his faith in the company behind it, his liking for the men he works with, and a lot of other intangibles that never show up on the balance sheet.

This part of the program can be broken down into seven steps, he said:

1. Outlining the present market for your kind of product.
2. Showing expressed preference figures for your own product.
3. Outlining the growth of the industry.
4. And the growth of your own company.
5. The profits and commissions your company pays.

6. The institutional story—your company as an organization.
7. The support it gives its salesmen in softening up the field.

An Outline for a Salesman's Activity

Selling the product comes after that. Its major steps fall into three parts, with details thereunder. The outline looks something like this, Mr. Craighead said, using 3 x 5 ft. charts to illustrate his thesis:

- A. Predemonstration.
 1. How to plan your time.
 2. How to find your prospects.
 3. How to qualify prospects.
 4. How to build interest toward your demonstration.
- B. Demonstration.
 1. Have a competitive model, and demonstrate it in action.
 2. Then give a complete use demonstration of yours.
 3. Use a chart to illustrate non-visible features.
 4. How to translate each segment of your product's operation into a sales clincher.
- C. Postdemonstration.

1. How to dig out objections.
2. How to make each one work for you.
3. How to close.

The question and answer forum brought out the following points:

Mr. Small: "Don't you meet a sizeable problem in getting salesman candidates?"

A: "We actively looked for them, in the first place, and I think we were lucky to find the number we needed."

"We left it up to the dealer. He stands part of the cost of this sales training, and it's a money loss to him if he hasn't got candidates to train when we hit his territory. We also pass on the candidates he has picked. When a candidate has passed on both counts, we've found his chance of turning out to be no salesman is pretty small."

J. C. Chamberlain, secretary of the Bureau of Radio & Electrical Appliances, San Diego: "Have you a set form of aptitude testing for your candidates?"

A.: "We have evaluation charts that check candidates for selling or for servicing all the way through (Concluded on next page)"



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Your Kerotest jobber is well informed, in advance, on new developments, new products and new ways to use time-proven items. The frequent contacts between jobber and buyer promote more up-to-the minute knowledge and early use of these new ideas.
- **TECHNICAL KNOWLEDGE**
Your Kerotest jobber's technical knowledge is the result of many years experience—it is not confined to a single line or product but to the broad needs and requirements of his customers.
- **LARGE INVENTORY STOCKS**
Your Kerotest jobber has a strong purchasing power—and in these abnormal times is able to procure the "almost" impossible items you need so badly. Under normal merchandising conditions his stocks are large and ample.
- **EFFICIENT PERSONNEL**
Your Kerotest jobber's staff is trained to recognize every opportunity in which they can provide SERVICE—more efficiently and promptly—to give intelligent information, quickly and courteously.
- **FAST DELIVERY**
In these difficult days, your Kerotest jobber provides a quick and systematic delivery service—so that little time is lost, and for postwar his service will be even faster.
- **HELPFUL AID**
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League Heads Discuss Trade-Ins, Other Problems That May Affect Market

(Concluded from preceding page) the course. Aptitude tests, no. The men are chosen on the basis of past experience and their apparent potential ability.

"Every man is an investment for a long time before he really produces more than he absorbs. We know that. And so each man being trained is marked on his attendance, his attentiveness, his retentiveness, his platform delivery, and the like. If he doesn't stay up to par, he drops out."

Compensation Policy

A. H. Kessler, of the North Central Electrical Industries, Minneapolis: "Does your company follow any regular policy on compensation?"

A.: "Yes, salary plus commission. The salesman must be satisfied with his take, or he won't stay. We believe in giving him a decent salary to start off with. Each salesman has a chart, based on local market conditions within the territory he covers, on the number of sales he should make."

J. G. Waddell, managing director of the Electric Institute of Boston, Inc.: "Doesn't the good salary idea cut down incentive selling?"

A.: "No, it doesn't. We do cut to a minimum the period during which a salesman isn't expected to be self sustaining. We believe that the sooner a man is expected to produce, the sooner he will produce. The salesman also is paid a good cut out

of every initial down payment on a sale. So it's up to him to make his sale stick, and to leave his customer a satisfied customer."

Doubts Present on Market Estimates

Outlining the merchandising picture with facts and figures, George F. Taubeneck, editor and publisher of AIR CONDITIONING & REFRIGERATION NEWS, cut present widely publicized estimates of big postwar markets by a third.

All consumer studies of the market potential in household refrigerators, for instance, have played up tremendous demand figures, he said. The wanted total is 15 million, according to those estimates. Yet manufacturers are getting ready to build 23 million boxes. Here's why:

1. Each manufacturer is trying for a bigger take than before the war.
2. Each sees new competition, and wants to smother it.
3. All of them have been misled by fallacious figures from factory men and dealers in the field. What the manufacturer doesn't allow for is that a customer may have signed up with several dealers for the same appliance, and although she will buy from only one, the total of them all boosts the estimated demand figure away over the mark.

Manufacturers realize that this may be so, he pointed out, but none of them wants to play it small and not have enough in the kitty when the chips are down.

'Automatic' Demand a Fallacy

What they're facing, then, is a market saturation if the dealers can sell that many, or a factory saturation if not. What will they do then? New products will help some—home freezers, automatic washers, television receivers—but here again the demand figures are well over actual sales potentials.

Phil Bratten, Frigidaire's general sales manager, illustrated the point in a recent letter to his field organization, Mr. Taubeneck related. The letter ran something like this:

"Don't let me hear anybody using that word 'demand.' If we're going to think of ourselves as just a supply organization, with no need to try to sell anymore, we might as well set ourselves up as floor traffic feeders and try to compete with Sears and Montgomery Ward."

Dealers without franchises are putting the pressure on manufacturers to license more outlets, the speaker continued. The established dealer is put on the defensive, he feels pushed to make a good showing, to prove that he's got his local market sewed up.

And so, unconsciously or not, his judgment is moved toward the optimistic estimate as to what he believes he can sell.

Salesmen Are 'Missing' Factor

All these forces are moving toward increased sales, toward active specialty selling, creating demand from a public that can be convinced. And salesmen are the missing factors. Industry doesn't need the clerks; it needs men who can sell themselves to people, and sell a product.

Surveys of returning servicemen show salesmanship at the bottom of the list, Mr. Taubeneck emphasized. Selling is a one-digit entry in the percentages of what they would like to do. Our job is to sell the young men, to show them selling as the interesting, competitive game it is, and as the decently paid profession we are going to have to make it.

Highlights among the questions and answers that followed were these:

Export Market

C. C. Munro, of the Electrical Association of Detroit: "What about the export market? Have you figured that in?"

A.: "Where are they going to get the money? You're right in bringing up exports as a strong potential, because there are good markets abroad, and our business with them provides fully 10% of our country's jobs. But loans to these countries must be the beginning."

H. F. Bennetts, secretary-manager of the Electric Association of Kansas City: "During the depression, strong competitive business ruined men trying to sell on a cold canvass. It gave a black name to the selling profession. Aren't manufacturers and dealers aware of this? Are they planning against it happening again?"

A.: "At the moment, a great many manufacturers and dealers don't even think they need salesmen. They can see a flush market for at least a year ahead, and they tell themselves that even that figure is conservative."

Why Train Salesmen Now?

Mr. Ritt: "In light of that, why is now the best time to train salesmen?"

A.: "Because nobody knows how much these demand figures have been inflated, and when the demand market will run out. We do know that the scarcer an item is, the more demand there is for it. Now is the safe time to get ready for the Seven Years of Famine."

"A few factors do mitigate the picture, though. Such as:

- "1. Some people will wait for the streamlined dream models they've seen in the Sunday supplements.
- "2. Some will wait for the 1946 models they know are coming. The new models today are really 1941 and 1942, good designs but not the newest. Jack & Heintz are making

a refrigerator in Cleveland that will use hot water to actuate the cooling cycle. All these are still to come.

"So now is the time to train your salesmen. Attract good men, pay them decent wages while they're learning, and train them soundly."

Mr. Ritt: "Should every dealer train salesmen? Won't that add up to too many?"

A.: "There are never more than 10% of the dealers that train their men thoroughly. As in every industry, a few dealers do the most work, get the highest percentage of the business, and constitute the backbone of the industry when the going gets tough."

Working on Trade-in Problem

Voice from the rear: "What about the trade-in problem?"

A.: "That's still one of the big ones. Here and there municipal cooperative groups have tried one approach that works pretty well: They set up a central plant with professional appraisers, and these experts hand down evaluation figures on specific makes and models—a blue book idea."

"All dealers then can give any shopper a figure, and it will be the same figure in every store, so cut-throat competition is avoided. A Nema committee is working on this problem now."

R. T. King, secretary of the Central Jersey Electrical League, Trenton: "What about the small independent dealer who hasn't got the facilities or the money to train salesmen now. He may have them a year from now, when good sales have given him a little capital to work with, but not now. Are manufacturers doing anything to help him out?"

A.: "They're beginning to. The small dealer certainly needs help, but they get to him last. It won't happen for another six months anyway. Here is where the leagues probably can help most."

Mr. Small: "Small manufacturers report that good men come to them for sales jobs but ask extremely high salaries for a small manufacturer to pay. The war brought in big contracts with small effort, while many salesmen worked in factories for overtime figures. Men coming back into selling will have to expect smaller orders and smaller commissions, at least until industry gets into high gear again."



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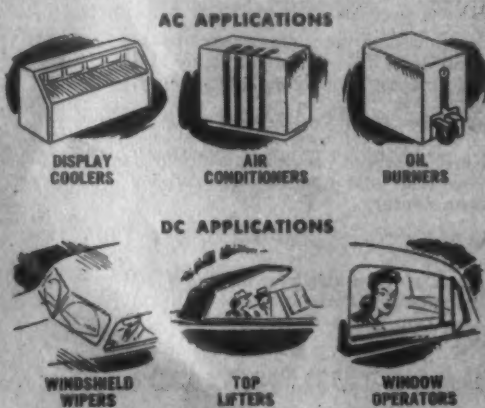
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For continuous duty operation, Type "T" Micromotors are built in sizes up to 1/25th horsepower, and Type "L" up to 1/40th horsepower. Direct Current series and shunt wound types are in sizes up to approximately 1/20th horsepower. Below are shown Micromotor applications typical of those in which Redmond "Customer Engineering Service" offers valuable assistance for assuring best results.



Composite view of Redmond facilities in which more than 2000 people are engaged exclusively in manufacturing Micromotors, Dynamotors, Speed Controllers and Blowers.

FROM THE JOBBER'S EXPERIENCE



Mr. J. M. OBERC of J. M. Oberc, Inc., Detroit, says—
"OUR CUSTOMERS SAY DAVISON'S SILICA GEL PROVIDES A 'ZONE OF PROTECTION'"

"I've asked our customers what they mean by the phrase 'Zone of Protection'. They reply that when they use Davison's Silica Gel, they know they have remedied the trouble and have prevented future trouble. For when they use Davison's Silica Gel, moisture troubles are over AND many other troubles that are often found in 'tricky' jobs. Of course they have tried other drying agents. But that 'Zone of Protection' angle causes them to stick to the many additional advantages offered by Davison's Silica Gel."

GIVES YOU—1. Maximum capacity that is not affected by oil; 2. Instant action; 3. Removal of Acids, Corrosive compounds and other impurities; 4. Freedom from Channelling of Refrigerant; 5. Safety—will not attack metals or alloys. Stock and recommend Davison's Silica Gel—in factory-charged dehydrators and for refilling.



Processed especially for the dehydration of refrigerants.

THE DAVISON CHEMICAL CORPORATION
Progress through Chemistry
BALTIMORE-3, MD.
CANADIAN EXCLUSIVE SALES AGENTS FOR DAVISON'S SILICA GEL: CANADIAN INDUSTRIES LIMITED, General Chemicals Division

Railroads and Truckers to Expand Facilities To Avert Bottleneck in Frozen Food Industry

NEW YORK CITY—Expansion of refrigerated transportation facilities, both highway and rail, to avert a threatened bottleneck to the growth of the frozen food industry was promised at a transportation meeting conducted here recently by the warehouse and transportation committee of the Eastern Frosted Foods Association.

In discussing refrigerated highway transportation, B. D. Davidson, vice president, Davidson Transfer & Storage Co., said "there is very little equipment indeed, if any, now in service that is thoroughly suitable for the zero and vicinity temperatures which are necessary for the transportation of frozen foods."

Rapid development at an early date of adequate highway transportation facilities was forecast by Mr. Davidson, however. By 1946 remarkable changes in design and construction of mechanical refrigerators are predicted, he said, citing several types on which manufacturers are working.

To illustrate the need for improved highway transportation equipment, Mr. Davidson recalled that on Dec. 31, 1941, a government survey revealed that there were 27,100 refrigerated trucks in service throughout the United States. That represented only one-tenth of 1% of the total amount of trucks with direct-mounted bodies. Some 83% were used chiefly by manufacturers in the wholesale and retail foods business. In the semi-trailer classification there were 4,700 insulated and refrigerated types representing 4% of all semi-trailers as a group.

Asserting that they recognize the potentialities of the frozen food industry, railroad officials said they are making efforts to expand facilities to meet its needs. Besides new cars, some of which are beyond the blueprint stage, they said research is progressing to maintain relatively inflexible temperatures and make control readings without opening cars. C. C. Rowland of the Pacific Fruit Express said there are now in service 1,500 super-insulated cars, in addition to 7,000 standard air-circulating fan cars, which provide reasonable satisfaction especially on short hauls.

Speaking for the refrigerated warehouse industry, Paul Christensen, vice president of Merchants Refrigerating Co., New York City, said that freezer capacity of the warehouses during the war expanded to 60%, cooler capacity dropping to 40%; whereas before the war freezer capacity was only 40% and cooler capacity was 60%. He declared that

in view of the frozen food industry's potentialities, the refrigerated warehouses probably will maintain and possibly expand freezer capacity if currently favorable expansion prospects are subsequently justified.

Mr. Christensen said every effort has been made by the warehouses to eliminate temperature fluctuations which, he explained, raise havoc if they are too great or occur too frequently. Through the Refrigeration Research Foundation, he pointed out, \$250,000 a year is being spent on 25 separate storage and freezer projects.

Gradual conversion "of most of the foods we eat into preservation by quick freezing" will be the most important food revolution in the next 10 years, it was predicted by E. W. Williams, publisher.

Noting that 75% of all American

foods today are perishable and that all perishable food sales now amount to \$17,000,000,000 annually, of which slightly less than 2% represents the sale of commercial frozen foods, Mr. Williams estimated that 65% of perishable foods will be preserved by quick freezing by 1965.

That would mean, he pointed out, the sale of \$10,000,000,000 annually instead of current sales of \$250,000,000. On a volume basis, he said that production of frozen fruits, vegetables, sea foods, meats, and poultry is estimated this year at 800,000,000 pounds, against 600,000,000 a year ago and 300,000,000 in 1939.

Citing transportation as one of the frozen food industry's current bottlenecks, Mr. Williams asserted that if the industry is to continue expanding, "it is obvious that more facilities for transportation will be needed.

Present means of transportation are inadequate and definitely have not kept pace with the industry." He stressed particularly less-than-carload lot inadequacies.

Portable Refrigerator Developed by Raskin For Army Air Forces

DAYTON, Ohio—A 50-cu. ft. airborne refrigerator is one of three products developed by Cpl. Rubin Raskin, former vice president and production manager of Stangard-Dickerson, Newark, N. J., and adopted for standard use by the Army Air Forces.

Cpl. Raskin's developments were revealed by the equipment laboratory of the Air Technical Service Command at Wright Field here.

The refrigerator, a portable, "knock-down" unit, has been in use for more than a year in planes flying to advanced bases, according to the laboratory.

An airborne air cooler weighing less than 900 pounds and a portable air conditioned field maintenance and repair shop are Cpl. Raskin's other products. The cooler was used extensively for pumping fresh air into medical evacuation planes pausing for emergency refueling or repairs, the laboratory said, and the shop permits precision operations at tropical bases.

Cpl. Raskin has been assigned to the laboratory since July, 1943. He will return to Stangard-Dickerson upon discharge.

Salem Appoints Stark Sales Supervisor

SALEM, Ohio—Kenneth Stark was appointed sales supervisor in charge of frozen food locker plants, commercial freeze, and commercial cold storage here, it was announced by Salem Engineering Co.

He will headquarter at the company office here. Coming originally from Traer, Iowa, his previous position was sales manager of Dairy Industries, Inc., Des Moines.

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WITH NEW
IMPROVEMENTS

Sizes to Suit
Any Merchant
Who Serves
or Sells Foods
or Beverages

MODEL R



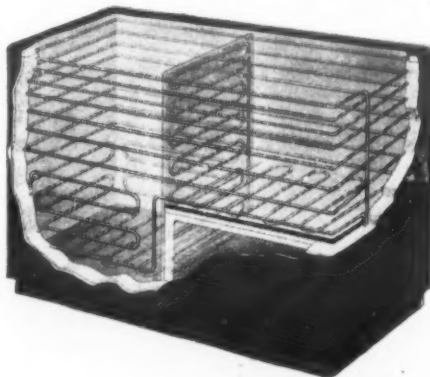
MADE TO LAST—PROVED BY YEARS OF PRACTICAL PERFORMANCE IN EXACTING COMMERCIAL SERVICE

Here's the self contained commercial "plug-in" unit engineered for outstanding performance in any type of store or institution that serves or sells foods or beverages. Blue Flash has proved its efficiency and economy in thousands of retail establishments... now has greater

advantages than ever before in construction and design. Blue Flash refrigerators are backed by years of dependable manufacturing experience—are made for superior dry refrigeration with maximum capacity in minimum floor space.

FIVE-SIDED CONDUCTIVE COOLING...AN ORIGINAL BLUE FLASH ADVANTAGE

Complete and superior DRY refrigeration from bottom to top of each compartment—that meets all dry refrigeration sanitary laws throughout the country. Can be used for WET chilling of bottled and canned beverages where desired. Top opening prevents "spill-out" of cold.



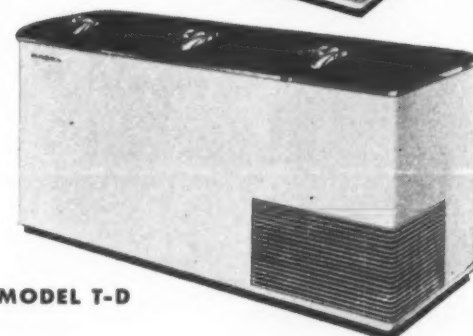
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WHOLESALE DIVISION
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Coming BLUE FLASH FOR FROZEN FOODS



MODEL R-D



MODEL T-D

For Commercial or Domestic Use

With latest developments for protection of perishable foods at zero temperatures. In two sizes, for 9½ and 17½ cubic feet of frozen food storage space. Brunswick 5-sided conductive freezing principle increases efficiency—lowers operating cost.

Gilmer BELTS

When customers ask for replacement belts, be ready to supply them with rugged, long-lived, efficient Gilmer V-Belts—the low stretch belts that always fit—the dependable belts that build goodwill.

There are Gilmer V-Belts for all air-conditioning and refrigeration units. That's because they are made on the largest assortment of V-moulds in the world. Get in touch with your jobber today.

H. GILMER COMPANY
Philadelphia 35, Pa.
Div. of United States Rubber Company



Electromaster Range Prices Established

DETROIT—Approval of maximum prices for two models of electric ranges manufactured by Electromaster, Inc., is contained in Order 197, MPR 64, recently issued by OPA.

Prices on the models, 15-1S and T-41-1, are subject to each seller's customary terms, discounts, allowances, and other price differentials in effect on sales of similar articles, the order stipulates. The order is effective Oct. 20.

For sales by wholesale distributors to retail dealers, the ceiling prices, including the federal excise tax, are:

Model and Quantity	Maximum prices for sales to retail dealers			
	Zone 1	Zone 2	Zone 3	Zone 4
15-1S	Each	Each	Each	Each
1 to 4	\$106.55	\$108.58	\$110.30	\$122.33
5 or more	102.61	104.56	106.20	108.16
T-41-1				
1 to 4	71.52	72.61	73.71	74.77
5 or more	68.87	70.07	70.97	72.02

These prices are f.o.b. the seller's city.

Top figures for sales by retail

dealers to ultimate consumers, including the federal excise tax but not local sales taxes, are:

Model	Maximum prices for sales to ultimate consumers			
	Zone 1	Zone 2	Zone 3	Zone 4
15-1S	Each	Each	Each	Each
1 to 4	\$169.25	\$172.50	\$175.25	\$178.50
T-41-1	114.75	116.50	118.25	119.95

OPA said these prices include delivery, a one-year warranty, and installation, provided the latter requires only a range cord set. If a set is not provided, the dealer must reduce the price by \$3.50.

Simplex Mfg. Prices

OAKLAND, Calif.—Model FCS-4-46, a 12 cu. ft., Two Temperature refrigerator manufactured by Simplex Mfg. Co., 1135 Third St. here, has a top retail price of \$445 under an OPA order effective Nov. 1.

Maximum prices on sales to distributors were set at \$222.50 and to dealers at \$267.

The order No. 87, MPR 591, prescribes that discounts, allowances, and services must be comparable to those rendered during March, 1942.

9 Firms Get OPA Prices on Freezer Cabinets

Brewer Titchener
Sub-Zero Freezer
Carrier Corp.

WASHINGTON, D. C.—Three recent OPA orders issued under MPR 591 and effective Nov. 1 established ceiling prices for farm and home freezers manufactured by Brewer Titchener Corp., of Binghamton, N. Y.; Sub-Zero Freezer Co., of Madison, Wis.; and Carrier Corp., of Syracuse, N. Y.

Maximum prices for three models of farm freezers produced by Brewer Titchener Corp. were fixed as follows by Order 86:

Model	To distributors	To dealers	To consumers
12½ cu. ft., ½ hp. condensing unit	\$240	\$288	\$480
18 cu. ft., ½ hp. condensing unit	340	408	680
23 cu. ft., ½ hp. condensing unit	375	450	750

Order 88 allows the following ceilings on five farm freezers manufactured by Sub-Zero:

Model	To distributors	To dealers	To consumers
17.5 cu. ft., ½ hp. condensing unit	\$283	\$340	\$566
15.5 cu. ft., ½ hp. condensing unit	268	322	536
11 cu. ft., ¼ hp. condensing unit	185	222	370
18.75 cu. ft., ½ hp. condensing unit	300	360	600
11 cu. ft., ¼ hp. condensing unit	195	234	390

Three Carrier home freezers may be sold for the following top prices

under Order 89:

Model	To distributors	To dealers	To consumers
No. 14D5, 15 cu. ft., ¼ hp. condensing unit	\$255	\$306	\$510
No. 14D7, 30 cu. ft., ½ hp. condensing unit	400	480	800
No. 14B1, 3 cu. ft., ¼ hp. condensing unit	130	156	260

The orders ruled that these prices shall be subject to discounts, allowances, and services as favorable as those extended on comparable sales during March, 1942. Each class of purchaser may be charged \$6 extra for crating cost and a distributor or dealer may add crating charges paid to the supplier.

Distributors and dealers may also add the actual amount of freight paid for delivery to places of business, not to exceed the lowest common carrier rates.

Kay Refrigeration

Brunsell Bros.

Freezit, Inc.

Crager Refrigeration

Abco Refrigeration

WASHINGTON, D. C.—Five manufacturers of farm and home freezers have been given maximum prices for their products by OPA under MPR 591.

The manufacturers are Kay Refrigeration, of Detroit; Brunsell Brothers, of Route No. 3, Madison, Wis.; Freezit, Inc., 314 W. Fowler, Milwaukee, Wis.; Crager Refrigeration Co., of Milwaukee, Wis.; and Abco Refrigeration Manufacturers, 309 Railway Exchange building, Seattle, Wash.

A 6-cu. ft. home freezer, with a ¼-hp. condensing unit, produced by Kay is priced at \$330 to consumers, \$198 to dealers, and \$165 to distributors under Order 95.

Retail price for the 17-cu. ft. freezer cabinet manufactured by Brunsell Brothers was set at \$228. On sales to dealers, the price is \$137

and to distributors, \$114. Prices on the cabinet, which does not have refrigerant equipment, were established by Order 96.

Order 97 fixed ceiling prices for two models of freezers put out by Freezit. The 17-cu. ft. model with ½-hp. condensing unit may be sold to distributors for \$255, to dealers for \$306, and to consumers at \$510. The 14-cu. ft. model, with the same type condensing unit, has a price of \$228 to distributors, \$274 to dealers, and \$456 to consumers.

Crager's 13.33 cu. ft. freezer with ½-hp. condensing unit, has a price of \$400 to consumers, \$240 to dealers, and \$200 to distributors by terms of Order 98.

Three models of home freezers produced by Abco will sell for the following prices as set by Order 99. Model 15F—15 cu. ft., ½-hp. condensing unit: \$248 to distributors, \$298 to dealers, \$496 to consumers. Model 20F—20 cu. ft., ½-hp. condensing unit: \$300 to distributors, \$360 to dealers, \$600 to consumers. Model 25F—25 cu. ft., ½-hp. condensing unit: \$350 to distributors, \$420 to dealers, \$700 to consumers.

All prices are f.o.b. point of shipment. Addition of certain freight and crating charges are permitted by the orders, which subject the prices to discounts, allowances, and services on the March, 1942, levels.

Bally Case & Cooler

BALLY, Pa.—Bally Case & Cooler Co. has received OPA's ceiling prices for sales of its frozen food cabinets.

The prices, fixed by Order 74, MPR 591, are: For Series 6100 and SC6100 (14 cu. ft.), \$262 to distributors, \$314 to dealers, \$524 to consumers; for Series 8600 and 8600 SC (20 cu. ft.), \$357 to distributors, \$428 to dealers, \$714 to consumers.

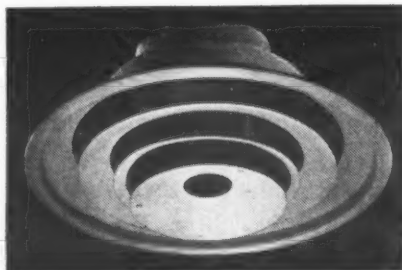
Effective Oct. 25, the order permits increase of the prices to each class of purchaser by \$6 to cover crating costs and subjects prices to discounts, allowances, and rendition of services comparable to March, 1942.

Control of air direction and volume as an aid to satisfactory supply air diffusion

Whether they are used in heating, cooling, ventilating, or combined systems, KNO-DRAFT Diffusers can be adjusted quickly and accurately for system balancing and individual or seasonal requirements. As a result the factors of temperature variation, temperature fluctuation, drafts and noise can be minimized considerably.

Type K Adjustable Diffuser
with Type D Volume Damper
for supply air.

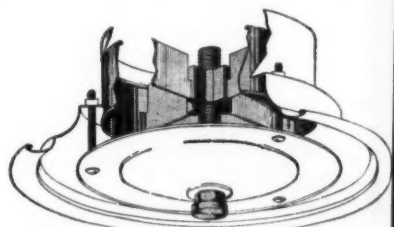
Pat. and Pat. Pending



Type SR Adjustable Diffuser
for supply and return air

By simply turning the air adjustment screws (easily accessible from under the unit) the inner cone may be raised or lowered to secure any angle of air direction required. A built-in damper, with which either model can be equipped, varies the outlet aperture uniformly without affecting the outlet velocity or diffusion pattern. Thus, the air direction and volume of the same KNO-DRAFT Diffuser can be adjusted to be equally effective in expelling chilled air parallel to the ceiling or ejecting heated air downward to prevent stratification.

With KNO-DRAFT Adjustable Diffusers many engineers have been able to in-



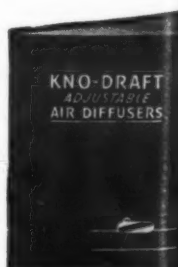
Any desired condition at your finger tip

sure efficient air distribution, maximum premixing of room and supply air, noiseless and draftless diffusion and uniform temperature throughout the occupied zone. And they have been able to reduce labor and sheet metal costs by distributing large volumes of air at higher duct velocities in smaller simplified ducts with fewer outlets because KNO-DRAFT Diffusers permit the use of higher neck velocities.

The W. B. Connor Engineering Corporation maintains a staff of trained specialists and district representatives in leading cities to assist you with any air distribution problem.

FREE
HAND BOOK

Contains clear sketches, charts, dimension prints and instructive text that simplify the selection and installation of air diffusers. For your copy write Dept. A-9.



W. B. CONNOR ENGINEERING CORPORATION

AIR RECOVERY

AIR PURIFICATION

AIR DIFFUSION

112 EAST 32ND STREET



NEW YORK 16, N. Y.

This is it!

The New Postwar
LAU BLOWER

New!
OFF-SET IN
SCROLL SIDES

New!
BEARING BRACKET

New!
BEARING ASSEMBLY

New!
Positive Alignment of
WHEEL TO VENTURI

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1-PIECE
MOTOR MOUNTING

New!
REDESIGNED SCROLL

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DISCHARGE
OUTLET DESIGN

New!
CENTER
SUSPENSION-TYPE
WHEEL

NEW LAU "A" SERIES BLOWER ASSEMBLY—THE MOST ADVANCED UNIT EVER OFFERED ON THE MARKET

• Now you can have the last word in product development—result of years of research and design evolution—the new, vastly improved LAU "A" SERIES BLOWER ASSEMBLY. It is the all-time, outstanding achievement in the blower field. Many features are revolutionary—exclusive with Lau—and protected. Laboratory- and wind tunnel-tested for performance

and long life. Entire unit is die formed—no hand made parts whatsoever—lending itself to mass production on precision-built equipment with reflected low costs. Overall size considerably smaller than formerly. Will fit more jobs—outstrip all competition. Offered in complete range of sizes. Write or wire for description, dimensions, performance data, prices.



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BLOWER COMPANY

DAYTON 7, OHIO, U. S. A.

WORLD'S LARGEST MANUFACTURER OF FURNACE BLOWERS

Engineers and fabricators of general Air Handling Equipment • Single Inlet and Double Inlet Blowers • Propeller Fans • Accessories

20,000 Chicagoans In Daily Attendance At Appliance Show

CHICAGO—More than 65 manufacturers of household appliances exhibited their products throughout October at the Electric Association of Chicago's radio and appliance show, and an average of 20,000 people a day saw them, according to W. T. Reace, vice president in charge of sales for the Commonwealth Edison Co., where it was held.

The success of the exhibit went so far beyond expectations that with the closing of the city's fire prevention exhibit Oct. 31, which had taken one corner of the company's showroom, 13 more appliance manufacturers placed exhibits, and the show was announced as extended through November, completely occupying the 27,000 sq. ft. of floor space and bringing the total number of exhibitors to 80.

Most of the major refrigerator and range manufacturers were represented—Frigidaire, General Electric, Gibson, Hotpoint, Kelvinator, and Westinghouse—with models of the refrigerators they will produce in quantity during the next few months and the prices OPA has released for them.

Several home freezers were exhibited—Deepfreeze, Schaefer's "Pak-A-Way" line, three Victor units (10, 18½, and 26 cu. ft.), and a new contender in the field: Bishop.

The R. H. Bishop Co. plant is in Champaign, Ill. Their present unit has 16-cu. ft. capacity, with others being planned.

Melchior, Armstrong To Export Superior's Line

PITTSBURGH—Melchior, Armstrong, Dessau Co., Inc., has been selected as exclusive export representative for the distribution of refrigeration equipment manufactured by Superior Valve & Fittings Co., it was announced by W. A. Siegfried, Superior sales manager.

Mr. Siegfried said Melchior, Armstrong, Dessau is now represented in South Africa, South America, the Scandinavian countries, Australia, New Zealand, Mexico, England, and Europe and is still expanding in the export field, in which it has been active since 1899.

Interchemical Finish Divisions Consolidated

NEW YORK CITY—The operations of Ault & Wiborg Division of Interchemical Corp. and Murphy Finishes Corp., an Interchemical subsidiary, were consolidated on Nov. 1 and will be continued by Interchemical Corp. Finishes Division, it has been announced by Joseph R. Esposito and Charles J. Roh, the respective heads of these two units. Both firms are well-known manufacturers of enamels, lacquers, varnishes, paints, and other finishes.

Ault & Wiborg, established in 1878, has been a member of the Interchemical group since 1928. Late in 1944, Interchemical expanded its position in the finishes field when its subsidiary, Murphy Finishes Corp. acquired the assets and business of Murphy Varnish Co. which dates its experience back to 1866.

For the past year, the two units have operated independently, each specializing to a large extent in certain branches of the finishes field and marketing products which were leaders in these branches. For this reason, the two firms complemented each other; and the unification, according to Mr. Esposito and Mr. Roh, now brings within one division a wide background of diversified experience in metal finishes, wood finishes, metal decorating, can and drum linings, cable finishes, grain reproduction finishes, transportation finishes, household paints and specialties.

Operating as a single unit, the Finishes Division will have the benefit of the research facilities of both, augmented by the fundamental research program of Interchemical Corp., as well as a nation-wide integrated network of factories, warehouses, laboratories, and service stations.

Industrial products formerly sold under the names of Ault & Wiborg and Murphy will now be sold as Interchemical products. The Murphy brand name and trade mark will be retained for consumer products.

Officers of the new division, which will have its headquarters in the Empire State Building, New York City, are Charles J. Roh, Division chairman, Joseph R. Esposito, Division president; Joseph G. Morris, Division executive vice president; Paul S. Kennedy and Mark Frishkorn, Division vice presidents.

Brothers Ask Dissolution Of Ward Co. Partnership

LOS ANGELES—Two of the partners in the Ward Refrigerator & Mfg. Co. have petitioned the Superior Court in Los Angeles for dissolution of their partnership with a third partner.

Harry and d'Artagnan Ward, brothers, have directed their action against Dwight A. Ward, a third brother, claiming that for some time there has been considerable dissension among them in the operation of their refrigerator manufacturing business at 6501 S. Alameda St. here, and that the only way out is dissolution of the partnership.

The two brothers bringing the suit indicated a desire to buy out the third partner, if satisfactory arrangements could be made.

The company now does a gross business of more than \$2,000,000 a year and has a \$1,000,000 backlog of orders, according to the petition. The court was asked to appoint a receiver to effect the dissolution.

Lau Blower Doubles Productive Capacity

DAYTON, Ohio—The recently acquired building of Lau Blower Co., which was purchased for \$175,000, will practically double the company's present manufacturing capacity when in full operation, according to Ed Lau, president.

Located just five blocks from the present Lau plant, the two story structure was formerly a war plant. The building interior has been modernized in every way.

Nationally famous for Performance

DESIGNED, ENGINEERED, MANUFACTURED
BY WESTERN HEAT EXCHANGE EXPERTS

Out of the West come new, superior heat exchange units whose outstanding performance is making them famous throughout the world.

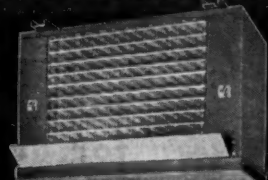
The complete d-h line includes air conditioning equipment, refrigeration equipment, airplane heaters, water and other liquid coolers, coils . . . each with outstanding qualities that invite comparison. They represent more than a generation of Western development. Into them go thorough knowledge of heat exchange principles . . . expert designing for proper proportion and balance . . . experience in manufacturing quality products with the finest factory facilities.

Our engineers can help you solve your heat exchange problem. Perhaps your answer is ready and waiting . . . perhaps only minor adaptation of standardized equipment is necessary. Write us about your needs.



drayer-hanson INC.
738 EAST PICO STREET • LOS ANGELES 21, CALIFORNIA

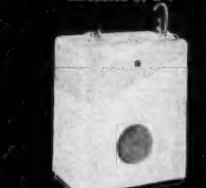
THE FIRST AND ONLY FACTORY OF ITS KIND IN THE WEST WITH COMPLETE FACILITIES FOR ENGINEERING, DESIGNING, MANUFACTURING HEAT EXCHANGE EQUIPMENT



FLOCOLD
Commercial cooling unit of superior design and performance



SPASAYER
Horizontal type air cooler first introduced by d-h



STRATA-FLO
Revolutionary type water cooler of unequalled efficiency



WAT-R-MISER
Evaporative liquid cooler that eliminates nine-tenths of ordinary operating costs

FIRST

... In Consumer Appeal.

There are more things about the Freez-All line for customers to "talk about"—both the drawer type models and the chest model have outstanding advantages which customers see quickly, thus providing the dealer with extra ammunition.

FIRST

... In Quality.

"Bulls eye" concentration on basic essentials is typical of Freez-All manufacturing. Freez-All's beautiful appointments and sound inner construction give this home freezer its right to leadership. That is why thousands have said, "this is the home freezer we want."

FIRST

... In Engineering.

Freez-All engineers first developed the drawer type freezer—perfected them so "one finger will do it." Freez-All engineers improved the low-temperature cabinet construction to provide talking points beyond all competition—engineered a chest cabinet unequalled in the industry.

The Original Drawer Type Freezer

FREEZ-ALL

REFRIGERATION DIVISION
PORTABLE ELEVATOR MFG. CO.
200 N. BLOOMINGTON, ILLINOIS



PUFFER-HUBBARD
A Case of
Good Refrigeration
Engineering

Your inquiry is invited now. Ask us about available equipment.

Practically every type of commercial refrigeration cabinet including Refrigerated Display Cases—Beverage Coolers—Walk-in Coolers—and Reach-In Cabinets . . . each bearing the mark of a good case.

All porcelain exteriors and interiors. Equipped with patented and exclusive Grad-U-Matic Air Conditioning Systems.

PUFFER-HUBBARD MFG. CO.

* The Mark of a Good Case
GRAND HAVEN, MICHIGAN, EST. 1898

Headquarters

REFRIGERATOR HARDWARE for domestic, commercial and low temperature cabinets

Standard and custom built designs. If you are a manufacturer or jobber, write for our new Refrigerator Hardware Catalog No. R-88.



Deepfreeze--

(Concluded from Page 1)

which will allow a more flexible program of change and improvement.

The war pushed the home freezer business ahead through rapid and progressive changes that ordinarily would have taken decades, he said. Low temperature cabinets have been used commercially for the last 20 years, but in 1941 home freezers were still a new idea.

You used to have to sell frozen foods in order to get customers interested in a freezer for their own homes. The picture today is entirely different: frozen foods are sold most effectively as traffic items, but the sale of home freezers is recognized as a specialty selling job, for dealers in the electrical appliance field.

BOTH ARE BIG BUSINESS

And both are big business, Mr. Smith emphasized. The frozen food industry alone has reached 17 billion dollars annually, and the pattern of its future growth is assured.

Home freezers were sold to perhaps 50,000 families before the war. The potential market of 28 million American families gives you some idea of what lies ahead. As a result the big department stores like Marshall Field's, J. L. Hudson's, and R. H. Macy's have given home freezers individual treatment, and the chain stores are following suit.

It is doubtful that traffic outlets will ever be able to sell major appliances successfully, he believes. In the face of specialty competition, there is little probability of their trying to. Traffic outlets have been outstandingly suc-

cessful in "impulse" items, he pointed out, and that is the probable direction of their expansion.

Deepfreeze's participation in this market will be a dominant one, Mr. Smith predicted. The company's advertising in the last five years has been so extensive as to make the name Deepfreeze a "generic term."

The company's 100% distributor to dealer organization will follow through with the idea of the home freezer as a specialty item in the electrical appliance field.

A distributor's profit will depend upon his ability to serve, Mr. Smith believed. He will have to provide merchandising counsel, financial obligation, and active cooperation in the training of dealers' salesmen and service men.

RULES FOR MANUFACTURERS AND DISTRIBUTORS

He listed four rules that dealers, for example, would consider good business for the manufacturer and the distributor to follow toward helping the dealer make the most of his opportunities:

1. Don't put in too many dealers.
2. Select dealers carefully, then give them the tools to do the job.
3. Give them a good market to do it in.
4. Don't sell to anyone but a dealer.

The company, in turn, will engineer the finest mechanical product possible, he stated, and it will sell at the lowest price consistent with that ideal.

A new plant is in the process of construction in North Chicago, he announced, that will cost in excess of \$1,800,000. It will be equipped with the most modern machinery that can be designed, and will enable Deepfreeze to compete in price and performance with any low temperature unit in the industry.

Its output will more than counterbalance the obstacles that have delayed Deepfreeze production in the past few months, Mr. Smith disclosed—factors such as a shortage of skilled labor, holdups in the delivery of compressors to the company, and other industrial distractions.

SCHEDULE RISING

In spite of these, 500 Deepfreeze units were produced during October, and the plant's schedule is now rising steadily.

Ten district managers will be appointed in the near future, Mr. Smith told the distributors. Two of these already have been named: Thoben F. Elrod, of Atlanta, and R. H. Fredberg, of Cleveland.

With Mr. Smith on tour were F. F. Duggan, sales manager of Deepfreeze, S. J. Seibert, service and engineering chief, and R. V. Newbell, advertising and sales promotion manager. The substance of their talks will appear in subsequent issues of the NEWS.

Refrigeration to Aid Packer In Scheduling Shipments of Grapes

FRESNO, Calif.—More than 50 carloads of grapes can be refrigerated simultaneously in the new packing plant of Reedy Grape Growers, Inc., completed in October near here.

Designed to iron out the periodical "peaks" in grape shipping due to weather and perishability of seasonal crops, the new packing and cold storage plant will allow Reedy Grape Growers to ship San Joaquin Valley grapes in approximately the same amounts an extra three or four months a year.

According to M. W. Gregg and Bert Smith, owners of the new plant, this will likewise eliminate annual losses from flooding the market at the grape-picking season and inability to deliver later on.

The new building is fireproof throughout, measuring 60 x 165 ft., and is conveniently served by track spurs on either side. Fluorescent lighting has been installed in both the packing area and the cold storage plant. A 350-ft. belt conveyor carries grapes from the truck dock through washing, sorting, processing, and packaging units and thence into the cold storage area.

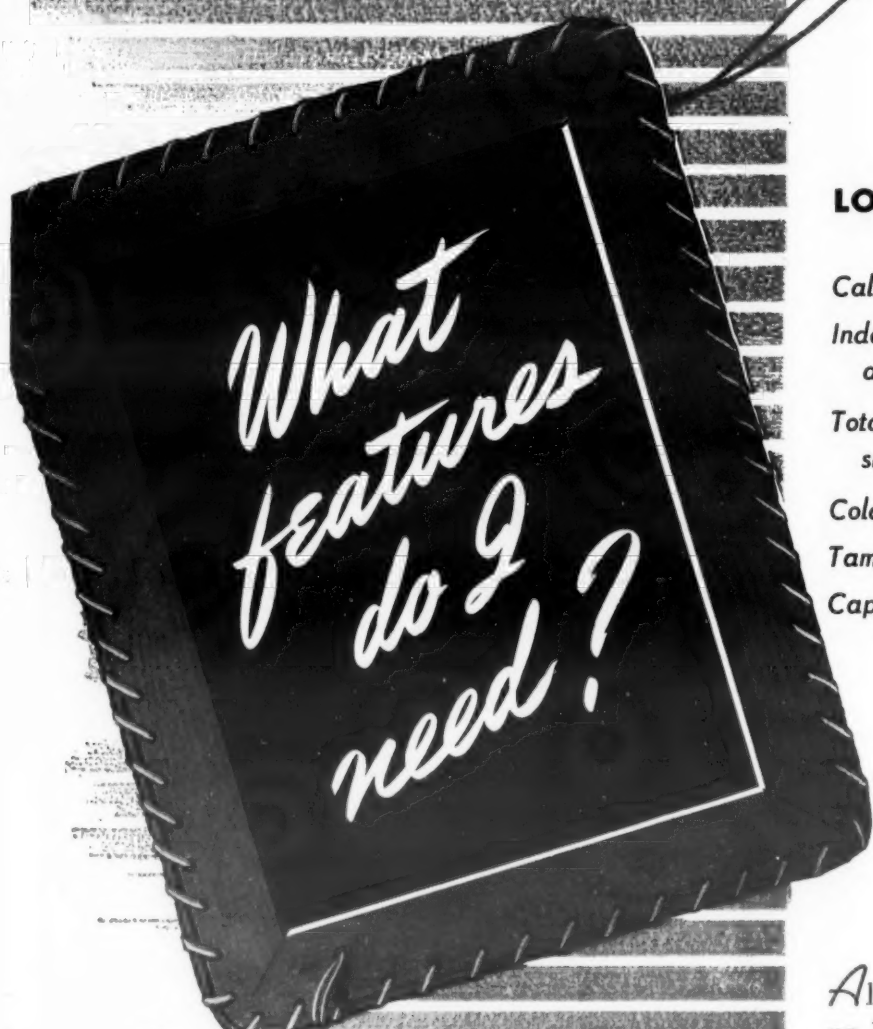
After the boxes are packed and placed on the belt for lid application, they are transferred to the conveyor which carries them over two kickers into the storage rooms. Three of the refrigerated rooms have a capacity of 12 cars each, while a forward stock room can accommodate eight more cars. The chilling room, in which temperatures of grapes are gradually reduced, can hold six carloads, totaling to 50 carloads of storage space.

In the immense cold storage plant, among the largest in the state, the temperature for grape storage is maintained at 30° to 31° because the sugar content will allow a sharp drop in temperature. Tree fruit cannot be brought down so low because the cells are likely to break down when the fruit is exposed to outside warmth.

A close check by thermostats installed at frequent intervals through all of the storage rooms keeps the temperature within a 3° spread. Far more consistent grape supply to food wholesalers will be the result of this system.

New Service Firm In Bakersfield

BAKERSFIELD, Calif.—Lee Holley and E. Barsotti have opened the Bakersfield Refrigeration Service here to service commercial and domestic refrigeration units and air conditioning installations, it was disclosed recently.



LOOK FOR THESE

- Calibrated dials
- Independent adjustment of cut-in and cut-out pressures
- Totally enclosed dust-proof snapswitch
- Cold control adjustment
- Tamper-proof cover
- Capillary pressure connection

All these features are standard on Minneapolis-Honeywell Refrigeration temperature and pressure controls. Many others, especially designed to meet your individual requirements, are available. See your Honeywell branch or jobber for details. Minneapolis-Honeywell Regulator Company, 2807 Fourth Avenue South, Minneapolis 8, Minnesota.

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CONTROL SYSTEMS



"it's an OASIS!"

When it's an OASIS, you're sure of the best in drinking-water satisfaction. OASIS Electric Water Coolers lead the feature parade—in low-cost operation... sturdy, space saving construction... "tailored" beauty of design... sanitary, splash-free bubbler action and many other points of value. OASIS coolers are designed and built by EBCO—their built-in advantages are the fruit of EBCO'S 20 years of pioneering leadership in the electric water cooler industry.



The EBCO MFG. CO. 401 W. TOWN STREET COLUMBUS 8, OHIO

Refrigerator Door Inventor Awarded \$61,250 In Patent Suit Decision

DETROIT—A patent suit started seven years ago by a Michigan inventor against Crosley Corp. over improvements for a refrigerator door resulted late last month in a Federal District Court judgment awarding the plaintiff \$61,250.

The inventor is William F. Dart, of Mason. Judge Edward J. Moinet decided the case here.

Crosley officials are now studying the case but as yet have not determined what action will be taken, a corporation attorney said. The concern has 90 days in which to file an appeal with the U. S. Circuit Court of Appeals at Cincinnati, Ohio.

Judge Moinet ruled that Mr. Dart is entitled to the inventions of claims one through four of Patent No. 2,051,132—issued to Crosley Corp. Aug. 18, 1936—and was damaged by Crosley's "refusal and failure" to assign him these claims.

EMPLOYS INNER DOOR

In describing his inventions in a patent petition specification as involving a refrigerator door latch, hinge, and cut-out inner panel, Mr. Dart said the primary object is the provision of inner and outer doors which open and close either simultaneously or independently. The inner door is shaped so when shut it will expose the ice cube chamber but keep the food compartment closed to atmosphere, thus permitting more economical operation and more even temperatures, he explained.

He said he filed an application March 8, 1934, for a patent on his inventions. Then an "interference" was declared, he claimed, between his application and other applications including certain ones owned by Crosley.

Following settlement of this interference, Mr. Dart said an "Agreement" was signed with Crosley under which the corporation contracted to prosecute an application prepared by its attorneys as a division of the original application owned by himself and covering the inventions.

CLAIMS AGREEMENT

In addition to prosecution of the division application, Mr. Dart contended that Crosley agreed that within six months after issue of a patent it would advise him if it desired to manufacture the refrigerator doors as exclusive licensee. He said the corporation consented to pay him 10 cents for each refrigerator embodying the inventions, should it take up this option.

The "Agreement" further stipulated that if the option was not exercised, Crosley was to provide Mr.

Dart with unrestricted title to the inventions. If it was, the corporation agreed that should royalties not reach \$5,000 a year, it would reassign the patent to Mr. Dart at his request, he argued.

The inventor charged that during the prosecution of the application, the corporation, through its attorneys, "failed to divide from said application . . . the inventions belonging to the plaintiff and which had not been assigned to the defendant and caused Letters Patent of the United States No. 2,051,132, dated Aug. 18, 1936, to issue to the defendant as assignee of the plaintiff, containing claims to and covering the inventions of said divisional application . . . which had been reserved to the plaintiff under the agreement and the assignment."

It was Mr. Dart's contention that the agreement "gives the defendant a right to acquire a license to use these inventions of the divisional application upon issuance of a patent."

CROSLEY'S ANSWER

Crosley, in its answer to Mr. Dart's contentions, denied that it had violated any of the inventor's rights, appropriated any of his inventions, or caused him any damage. The corporation maintained that it had not manufactured refrigerator doors containing inventions reserved to the plaintiff or licensed others to do so.

In its counterclaim, Crosley held that although a patent had been issued to it, it was unable to secure claims "for the broad and general combination . . . which said plaintiff had represented the defendant would be able to obtain." Crosley further claimed that Mr. Dart's statements that he could prove he was the first person to complete the inventions in its most general aspects "turned out to be incorrect."

BOUGHT ANOTHER PATENT

Through the subsequent purchase of an application by Allen R. Canton, Crosley said it secured "at great cost" a patent on the general and broad combination which Mr. Dart claimed to have invented first. The defendant asserted that the patent involving Mr. Dart's devices was "not such as to include the inventions of the scope which the plaintiff represented were his property."

"It was argued by Crosley that it kept Mr. Dart fully informed of the progress in prosecution of the application and upon issuance of the patent forwarded him a copy. However, Crosley held, the inventor

"made no claim of any right to said patent . . . but continued in collaboration with . . . patent attorneys, to continue prosecution. . . ."

"At no time has the plaintiff expressed a desire or exercised his right to substitute other attorneys . . . and that by such course of conduct the plaintiff has fully ratified all of the acts of (Crosley's) attorneys," the defendant said. It maintained that Mr. Dart's "remaining quiescent" after having obtained full knowledge of the patent issuance "constitutes an estoppel precluding the plaintiff from now asserting any claim of right. . . ."

MAINTAINED AGREEMENT

Crosley maintained that it kept the agreement on prosecution of the patent application by having its patent attorneys file the divisional application on April 17, 1935, "in the exact form and language" as agreed. The defendant said its attorneys "diligently prosecuted" the application, including prosecution of an interference which terminated favorably to the plaintiff. Two other divisional applications were filed Oct. 16, 1935, over signature of Mr. Dart, and prosecuted and paid for by Crosley, it was stated.

The defendant denied the charge of failing to divide from the original application the inventions Mr. Dart claimed to have reserved to himself.

Crosley admitted having filed suit in Cincinnati but explained that "such suit as originally filed was brought for infringement of a Reissue Patent . . . to one A. A. Canton, assigned to the defendant and that after filing of said suit, claim 4 of Letters Patent No. 2,051,132 . . . was added to said suit." Mr. Dart was notified of

the filing of this suit, Crosley said, and of the inclusion of the patent in the suit, but "that the plaintiff made no protest at that time, or at any time thereafter, until the filing of the Bill of Complaint . . . but continued to permit the defendant to materially change its position and to expend large sums in connection with prosecution of the . . . divisional application. . . ."

Mr. Dart was "fully aware . . . there was then included in the . . . application . . . the certain claims then numbered claims 4, 5, and 6 which became without change . . . claims 1, 2, and 3 of the patent . . . and that said divisional application did not contain any one of the said claims," Crosley said.

The corporation asserted that during prosecution of the application, there was inserted by an amendment filed April 11, 1935, an additional claim 16. This claim, it said, "was patterned after the claim then numbered claim 4, being a claim to the same invention as claimed in . . . claim 4 which was fully . . . assigned

. . . to the defendant . . . and which . . . became, without change, . . . claim 4 of the patent. . . ."

Crosley stated that the four claims (1, 2, 3, and 4) "constitute all of the claims of the . . . patent which was duly assigned to the defendant . . . and that said claims . . . are general combination claims covering the general combination of elements . . . in the . . . application . . . as originally filed by the plaintiff and as contained in said application . . . when assigned . . . and not claims to a particular type of door latch per se, a particular type of hinge per se for the door, or a particular type of cut out inner panel or door per se, as set forth in the claims of the divisional application. . . ."

Ely Refrigeration Formed In San Diego

SAN DIEGO, Calif.—Ely Refrigeration Service is the firm name under which Marvin H. Ely and James W. Ely are conducting business at 1479 Market St. here.

★ **DEPENDABLE** ★


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Fast Delivery on REFRIGERATION PARTS & SUPPLIES

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Tubing Topics . . .

PROGRESS REPORT ABOUT "WELD-ON" FINNED TUBING AND **TILCO FIN**

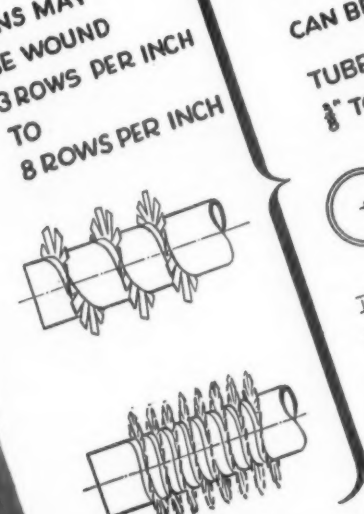
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Division of **DAVID E. KENNEDY, INC.** 68 Second Ave., Brooklyn 15, N.Y.

A unique advantage of Tilco Fin designing and production technique is the great flexibility made possible without any need for special dies. Consider this:

FINNINGS

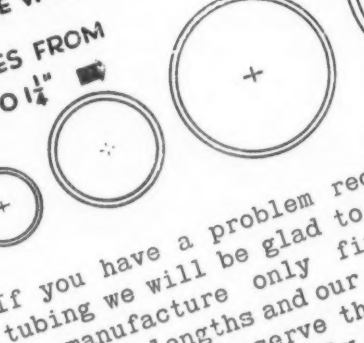
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FINNINGS FROM 1/4" TO ANY ECONOMICAL HEIGHT

CAN BE WOUND ON TUBES FROM 1/2" TO 1 1/2"



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If you have a problem requiring finned tubing we will be glad to work with you. We manufacture only finned tubing in straight lengths and our only interest is to efficiently serve those who use such tubing. We'll gladly send a Tilco Fin descriptive folder or specific information, without obligating you in any way.

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Dual Efficiency

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Segmented fin provides extremely high heat transfer factor.

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REFRIGERANT LEAK DETECTOR

TRADE PRICES

(Save 10% on case lots)

4 oz. bottle \$ 1.00
(18 bottles to a case)

8 oz. bottle \$ 1.75
(24 bottles to a case)

1 pt. bottle \$ 3.00
(24 bottles to a case)

1 qt. container \$ 5.00
(12 containers to a case)

1 gal. container . . . \$16.00
(6 containers to a case)

POSITIVE, PROFITABLE PROTECTION!

Add it to every refrigeration system

The smart refrigeration engineer puts TRACE in every unit he installs or services, and warns the customer to phone immediately if "bleeding" appears.

This protective measure insures prompt service at minimum cost for repairs and spoilage, and builds customer-confidence in the engineer. Add TRACE to every system.

"He Profits Most Who Serves Best"

ALSO MAKERS OF

THAWZONE

PATENTED

PIONEER FLUID DEHYDRANT

HIGHSIDE CHEMICALS CO.

195 Verona Ave., Newark 4, New Jersey

Sales Training Head



NORWOOD D. CRAIGHEAD
Named director of both sales training and merchandising programs of Bendix Home Appliances.

Craighead Directs Bendix Merchandising, Training

SOUTH BEND, Ind.—Norwood D. Craighead, former account executive for Ross Roy, Inc., has been chosen by Bendix Home Appliances Corp. to direct both its sales training and merchandising programs, with the title of retail merchandising manager, W. F. Linville, sales manager, announced.

Mr. Craighead has a background of 22 years in sales activities. His early experience includes positions as national sales promotion manager with two metropolitan newspapers and as public relations director of the Moon Motor Car Co.

For 12 years, Mr. Craighead held a key executive position with a national organization handling the sales training and promotion for leading automotive, electric, and other corporations. As an advertising account executive for Norge division of Borg-Warner Corp., he directed the advertising, sales promotion and training, and merchandising for seven years.

Joins Lynch



G. C. DAVIS
Now chief engineer for Lynch, he has been in the refrigeration industry for nearly 18 years.

Davis Named Lynch Chief Engineer

DEFIANCE, Ohio—G. C. Davis, who lately completed an engineering assignment in connection with high precision war products, has been appointed chief engineer of Lynch Mfg. Corp., makers of Par refrigeration equipment, it was announced.

Lynch said Mr. Davis will coordinate design and manufacture in the corporation's "greatly expanded" production program, conduct laboratory experiments, and give engineering assistance to the jobbing trade on application of Par equipment.

Mr. Davis has been associated with the refrigeration industry for nearly 18 years as a service and general experimental engineer and manufacturing consultant.

Trenor to Macy Associates

NEW YORK CITY—James Trenor has been appointed market representative in the Macy Associates buying office.

Production Chief



WILLIAM J. PELTZ

Peltz Heads Production Of Philco Refrigeration

PHILADELPHIA — William J. Peltz has been named general production manager of the Refrigerator Division of Philco Corp., it was announced by W. Paul Jones, vice president in charge of the division.

Mr. Peltz joined Philco in 1925 and served in various capacities in connection with the production of storage batteries, radio cabinets, and radio receiving sets. From 1936 to 1942 he was industrial engineer of the Radio Division and since that time has been production manager of the Radio Division, so he brings to his new position wide experience in all Philco operating and manufacturing techniques.

He will assist Edward F. Theis, vice president in charge of refrigerator production, in carrying forward company plans to more than double 1941 output.

Budworth Promoted By Frigidaire

DAYTON, Ohio — Appointment of P. W. Budworth to the position of director of government contacts was announced by H. F. Lehman, assistant general sales manager, Frigidaire Division, General Motors Corp.

Mr. Budworth, a veteran of World War I, first became associated with Frigidaire as a salesman in the Washington, D. C. district in 1926. He continued with the Washington district as commercial supervisor and then as commercial sales manager through 1931, at which time he opened his own dealership, the Budworth Commercial Refrigeration Co. In 1932, Mr. Budworth returned to the Baltimore-Washington district and was engaged as commercial sales manager and later as sales manager.

Walter Moses Appointed Marlo Representative

NEW ORLEANS — Walter B. Moses, Jr., former assistant Naval architect of Pendleton Shipyards Co., Inc., here, has been selected as regional representative for Marlo Coil Co., of St. Louis. Mr. Moses, a graduate engineer and a member of A.S.H.V.E., will make his headquarters at 7836 St. Charles St. here and cover the areas of Louisiana, Mississippi, Alabama, and northwestern Florida.

Refrigeration Engineer

At least five years application engineering experience, including the design of large commercial storage and freezing systems. Must be thoroughly familiar with load calculations, cost estimates, and the most recent developments in food and industrial refrigeration processes, techniques and equipment. Address reply to—Walter A. Grant, Director of Application Engineering, Carrier Corp., Syracuse 1, New York.

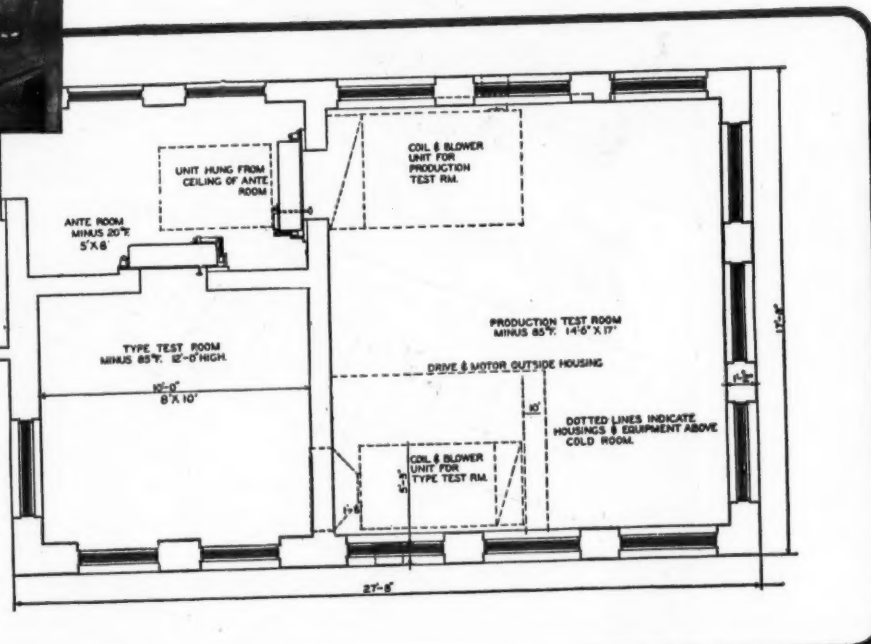
"FREON-12" and "FREON-22"

serve aircraft instrument test room maintained at -85°F .



(Top) — Interior view of "cold room" at Bendix Aviation plant. A. G. Harm, V. P. of Mance Corp., New York—designers and contractors—was co-designer of the installation.

(At right) — Floor plan of the test rooms.



In the Teterboro, N. J., Eclipse-Pioneer plant of the Bendix Aviation Corporation, aircraft instruments are subjected to severe low-temperature tests. A specially constructed "cold room" held at -85°F , approximates temperature conditions encountered at altitudes of 40,000 feet and more. To attain this low temperature, "Freon" refrigerants are used exclusively.

The "cold room," measuring 17 x 27 feet, is divided into four compartments. Temperature in a vestibule equipped with Dole plates is maintained at plus 20°F . In an anteroom with blower unit, the temperature is 0°F . Here, operators pre-heat their flying suits worn in the test rooms and acclimate themselves to the extreme low temperatures. Both chambers

are designed to trap moisture. A 10-h.p. "Freon-12" General Electric Condensing Unit refrigerates the rooms.

There are two testing chambers both of which operate at -85°F . Temperature control in the "Type-Test" room is provided by two G. E. condensing units using "Freon-22" in 30-h.p. low-stage and 20-h.p. high-stage units. For a production test room of somewhat larger dimensions, there are three G. E. condensing units; two 40-h.p. low-stage units in parallel and a 40-h.p. high-stage unit. The installation, housed in a compact machinery room, produces five tons of refrigeration at approximately -100°F suction temperature. Both test rooms are insulated with a 12-inch wall of Fiberglas and have ob-

servation windows of tempered glass seven panes thick. Coil bunkers and blowers are located above the rooms.

"Freon-22" easily enables us to get these low temperatures with maximum safety," states Harry J. Walpole, Jr., refrigeration engineer and co-designer of the installation. "It is particularly adaptable to the suction pressures at which we desire to operate. During pull-down tests, we reached a low of -94°F ."

Low-temperature requirements in any industry are readily met with "Freon" refrigerants. These safe and efficient refrigerants, now available in unlimited quantities, are widely approved and specified by prominent refrigerating engineers everywhere. Write for more complete information. Kinetic Chemicals, Inc., 10th and Market Sts., Wilmington 98, Del.



(At right) — One of the refrigerating installations consisting of two G.E. compressors and a condensing unit.



Shortage of Equipment Retards Frozen Foods, Engineers Informed

NEW YORK CITY—Now fully accepted by the public, the frozen food industry is on the verge of a great expansion retarded only by the shortage of equipment.

This future was prophesied by Donald Barr, vice president in charge of marketing of Birds Eye-Snyder, Inc., in a talk to the American Society of Refrigerating Engineers, New York section, at the Hotel Sheraton recently.

Mr. Barr told the engineers that extensive programs for development of home and farm freezers have been prepared by manufacturers of refrigerating equipment and referred to the locker plants that have sprung up all over the country. He pictured retailers and wholesalers as fascinated with the potentialities of the frozen food market.

A heavy demand now exists for processors' equipment, transportation and warehousing equipment, and retailers' units, he said, in calling the frozen foods industry a spur to the refrigeration equipment business and a provider of employment.

Mr. Barr recalled that the industry started from nothing 15 years ago, had to contend with a strong public prejudice in the early thirties. But last year, he said, six hundred million pounds of fruits and vegetables were quick frozen.

Big factor in turning this prejudice into complete acceptance was the war, Mr. Barr claimed. He asserted that the public had purchased varieties of foods that it had never used and had taken to freezing foods themselves.

Thus the U. S. has been provided with another great and fast-developing industry that will undergo widespread expansion as equipment becomes available, he said.

Mr. Barr reported that at present there are 40,000 retail stores with frozen food equipment, 380 brands of frozen foods on the market, and 70 packers distributing frozen foods to consumers. He stated that 15 manufacturers are turning out low-temperature store cases and that these and other producers have ambitious postwar programs.

And Now They're Freezing Coffee

SHEDIAC, New Brunswick—The air lines are accustomed by now to carrying unusual shipments, which undoubtedly accounts for the fact that officials didn't bat an eyelash at a cargo of 144 one-ounce cups of frozen coffee transported from Los Angeles to London, England.

Brewed in Los Angeles on a Tuesday, and frozen and packed in dry ice, the coffee shipment was put aboard an American Air Lines plane that day. At Toronto, Ontario, the shipment, which weighed 73 pounds, was re-iced and placed on a Trans-Canada Air Lines plane for Moncton, New Brunswick.

In Moncton, the re-icing process was repeated and the coffee was shipped to nearby Shediac for the last lap of its journey across the Atlantic by Pan-American Airways Clipper. It was again re-iced at Foynes, Eire, and the shipment reached the Croyden airport near London on the following Monday.

Although nobody said so, presumably the shipment was for some coffee-loving Americans in England.

Tyler Home Locker Line Includes 2 Uprights, Chest Type, Walk-In

NILES, Mich.—Four new farm and home lockers, including two uprights and a chest and walk-in type, have been introduced by Tyler Fixture Corp. here.

Model HU-18F is an upright with 18 cu. ft. of frozen food storage space equipped with a processing compartment.

The other upright, Model HU-18D, is a dual purpose unit containing 9 cu. ft. of frozen food storage space and a 9 cu. ft. normal temperature storage compartment.

Model HC-12 is a 12-cu. ft. chest type locker.

The fourth unit is described by Tyler as a "personal locker plant."

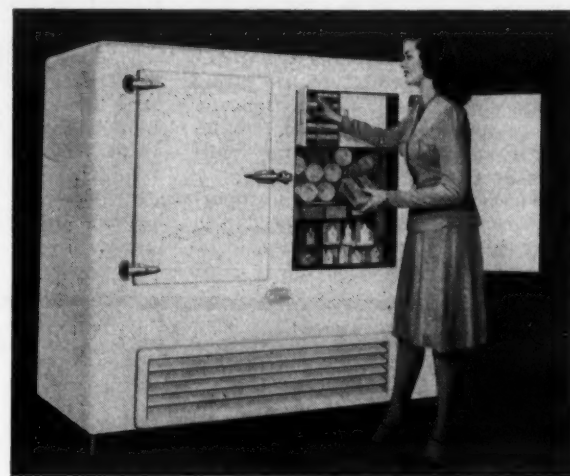
It is a walk-in cooler which can be erected sectionally in basements and service rooms. It has a capacity of 190 cu. ft., half of which is devoted to frozen foods storage and processing space, and the other half to normal refrigerating temperatures.

Features claimed for the line include hermetically sealed units, use of 5 in. of insulation, and welded steel construction.

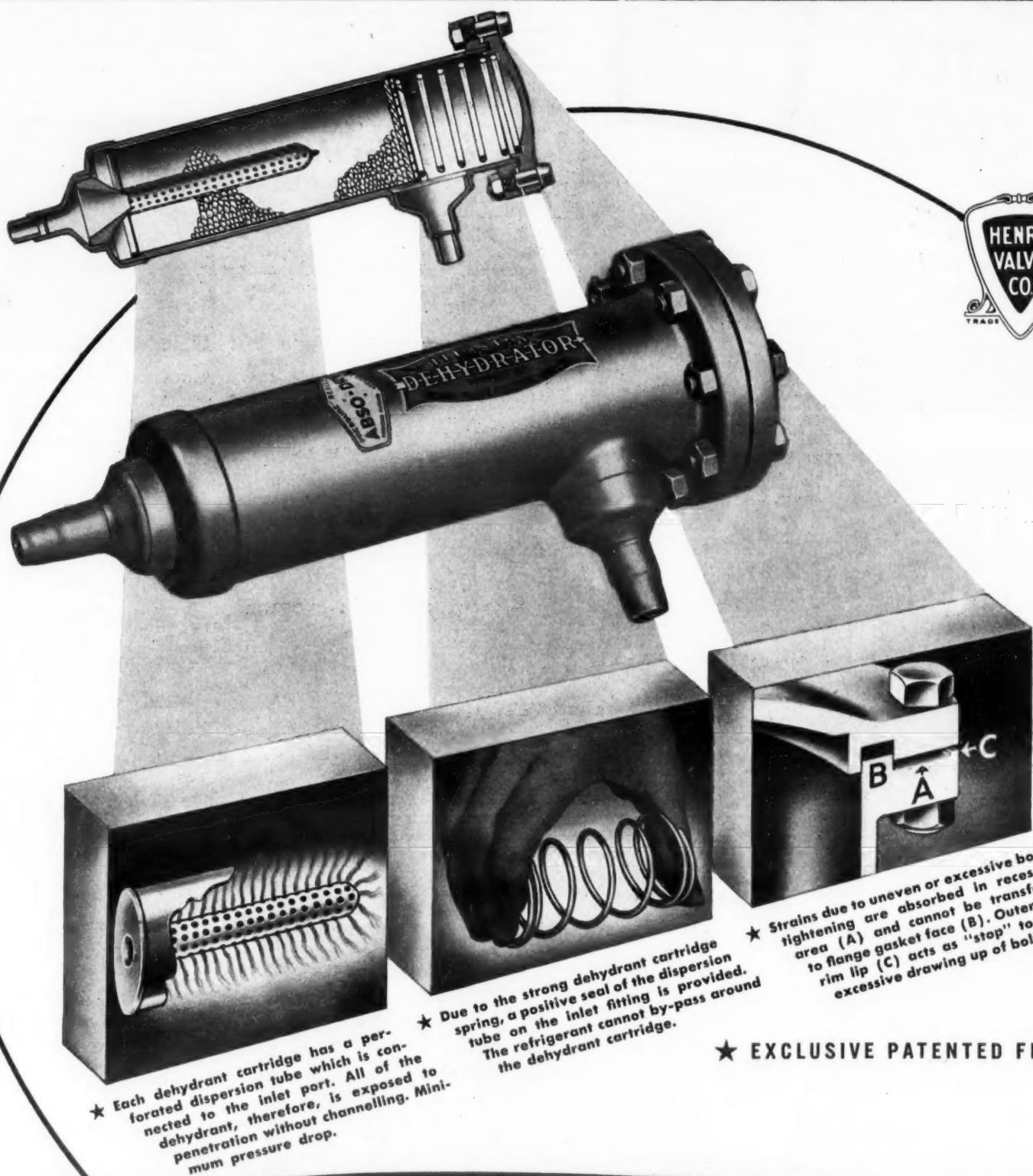
New Albany Distributor

ALBANY, N. Y.—Henzel-Powers, Inc., here, are the new distributors for Bendix Home Appliances in the Albany area.

New Tyler Upright Freezer Introduced



Two of the four new home and farm lockers announced by Tyler are upright models as shown here. One has 18 cu. ft. of frozen food storage and processing space; the other 9 cu. ft. for frozen foods and 9 cu. ft. for conventional temperatures.



★ Each dehydrant cartridge has a perforated dispersion tube which is connected to the inlet port. All of the dehydrant, therefore, is exposed to penetration without channelling. Minimum pressure drop.

★ Due to the strong dehydrant cartridge spring, a positive seal of the dispersion tube on the inlet fitting is provided. The refrigerant cannot by-pass around the dehydrant cartridge.

★ Strains due to uneven or excessive bolt tightening are absorbed in recessed area (A) and cannot be transferred to flange gasket face (B). Outer flange rim lip (C) acts as "stop" to prevent excessive drawing up of bolts.

★ EXCLUSIVE PATENTED FEATURES

CONVENIENCE AND EFFICIENCY RECOMMEND THIS HENRY CARTRIDGE DEHYDRATOR

EVERY trace of moisture can be removed from a Freon or Methyl Chloride refrigeration system and it can be kept moisture-free conveniently with this Henry Cartridge Dehydrator. The side outlet permits permanent installation of the dehydrator in a line. The flange shell construction affords easy replacement of cartridge. On new installations the dehydrant cartridge can be inserted AFTER the system has been pressure tested for leaks. Henry design, however, provides more than just operating conveniences—it assures greater operating efficiency because of the patented dispersion tube, dehydrant compression spring and distortion-proof flange, illustrated and described above. Available in a wide range of sizes with refill cartridges—with either Activated Alumina or Silica Gel. Cartridges are packed in moisture-proof containers.

Ask Your Jobber For A Henry Type 756 or 757 Cartridge Dehydrator—
He Has It Or Can Get It For You.

HENRY VALVE COMPANY

3260 WEST GRAND AVENUE, CHICAGO 51, ILLINOIS

PACKLESS AND PACKED VALVES • STRAINERS • DRYERS FOR REFRIGERATION AND AIR CONDITIONING
AMMONIA VALVES • FORGED STEEL VALVES AND FITTINGS FOR OIL, STEAM AND OTHER FLUIDS

It's
FULL FLOODED
THE HUBBELL-YODER
REFRIGERATION PLATE

Every square inch of surface
is prime heat pickup

ENGINEERING SERVICE, INC.
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Contractors Plan Exhibit

LINCOLN, Neb. — The Nebraska-Iowa chapter of the National Electrical Contractors made plans at a meeting here for an exhibit of the latest in modern electrical refrigeration and similar appliances to be held Feb. 26 through March 3 in the city auditorium at Omaha.

The exhibit will be under the supervision of E. J. Grafentine and will feature awards of appliances.

Armstrong to Erect Plant in Georgia

LANCASTER, Pa. — Armstrong Cork Co. has purchased a tract of land at Macon, Ga., on which will be built a plant to manufacture structural insulation board and allied products, announced H. W. Prentis, Jr., president. The proposed plant is part of the company's postwar program.

Pittsburgh Dealer Opens Showroom

PITTSBURGH — A new display room was recently opened at 5865 Baum Blvd. by United Refrigeration Sales & Service Co., commercial refrigeration and air conditioning distributorship handling the Tyler, Harder, and Carrier lines.

The United company was originally organized in 1927 as United Refrigeration Service by Joe Claggett, Clarence Claggett, and Edward Reilly.

In 1941 the firm changed its name when it merged with ABC Refrigeration Co., which had been set up by Gilbert Bernstein in 1939.

The complete assets of Hollingworth Co. were purchased by United in 1943, and until the latest move the firm maintained two locations: 6479 Frankstown Ave. and 111 Market St.

Other members of the United organization include Meyer Bernstein, Al Bernstein, and Larry Abelson.

Segler of Dallas Maps Expansion Move

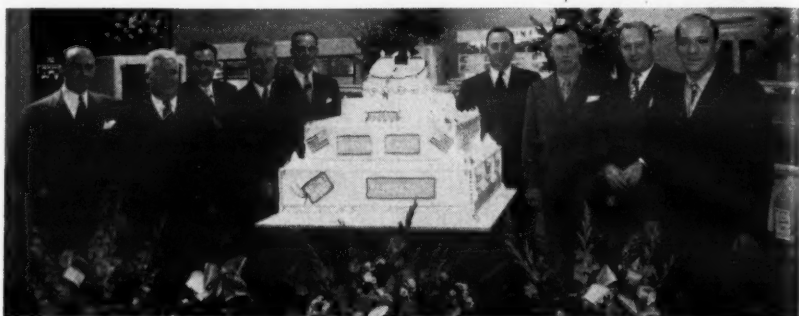
DALLAS, Tex. — W. H. Segler, distributor of McCray commercial refrigeration equipment here, has purchased a two-story brick building 50 by 100 ft. at 1008 S. Harwood St. here.

An adjoining vacant lot has also been obtained by Mr. Segler and here he plans to erect a new building to house used merchandise and a repair shop.

United Refrigeration Celebrates Opening



There's plenty of space in the new showroom of United Refrigeration Sales & Service Co., Pittsburgh, to display a variety of commercial refrigeration and air conditioning equipment.



United Refrigeration celebrated the opening of its new showroom with all the "fixins," but the staff paused for this photo: (left to right) Meyer Bernstein, Jack Ewing (Carrier representative), Ed Reilly, Clarence Claggett, John Fields (Carrier), Gilbert Bernstein, Joe Claggett, Al Bernstein, and Larry Abelson.

Ross Smith Heads Iceberg Officers

NEW YORK CITY — Ross R. Smith, chairman and president of Iceberg Refrigerated Locker Systems, Inc., has announced appointment of the new company's officers. Besides Mr. Smith, top executives of Iceberg are Dr. Huston St. Clair, vice president;

S. E. Ellingson, secretary-treasurer; and Sam C. Mitchell, general sales manager.

Permanent offices in the Empire State Bldg. have been taken over by the firm. Mr. Smith also announced plans for the company to include education of the American public in regard to frozen foods and frozen food storage.

Iceberg manufactures and distributes a line of commercial and farm size portable food storage units.

BEHIND THE SCENE

there's a Torrington Air Impeller



In today's modern cars, one may experience solid comfort despite the weather outside. A small Torrington fan blade or blower wheel built into the heater distributes warm air to every part of the automobile. Torrington air impellers are also used in defrosting equipment to keep the windshield free of snow and ice. Automobiles of the future will use Torrington Air Impellers for complete air conditioning.

Dependable performance and quiet operation are prime considerations in such applications. These qualities are built into all Torrington propeller fan blades and blower wheels.

Write for an Air Impeller Specification Sheet and use it to obtain our recommendation on the air impeller best suited to your product.



THE **TORRINGTON**
MANUFACTURING COMPANY, TORRINGTON, CONN.

Filtrine
HIGH EFFICIENCY

WATER COOLERS

STAINLESS STEEL Cafeteria Cabinet Type Water Coolers . . . all sizes.
INDUSTRIAL MODELS . . . for temperatures as low as 34 degrees.

Delivery Now

FILTRINE MANUFACTURING CO.
53 Lexington Ave. Brooklyn 5, N. Y.
Manufacturers of Coolers & Filters for over 40 Years

THEY STANDOUT
because they *GIVE OUT*
ICE CUBES with

Maximum
Convenience

Minimum
Cost



Aluminum ice cube trays by Inland are considered a "must" for original factory equipment by leading automatic refrigerator makers—and for replacement sales by dealers. They are fast freezing and give out ice cubes with maximum convenience and at minimum cost.

These two postwar Inland Magic Finish Ice Cube

They finished their job—let's finish ours! Buy Victory Bonds.

Trays give you a few cubes at a time or a brimming bowlful. For superswift freezing and instantaneous release, it's Inland Shucker and Tilt Out trays—first choice of makers, jobbers, dealers and users. For complete details and prices write to INLAND MANUFACTURING DIVISION General Motors Corporation, Dayton, Ohio

FAST FREEZING
QUICK RELEASING

ICE TRAYS BY INLAND

INLAND

Rejoins Frigidaire**F. M. MITCHELL****Mitchell Heads Laundry Sales for Dept. Store**

DAYTON, Ohio—F. M. Mitchell, director, Consumers Durable Goods Division, War Production Board, resigned his position with the WPB and has returned to the Frigidaire Division, General Motors Corp., as manager of laundry equipment sales, H. M. Kelley, appliance sales manager of Frigidaire, announces.

Mr. Mitchell, a graduate of Virginia Polytechnic Institute, was advertising and sales promotion manager of the Frigidaire District in Roanoke, Va., from 1938 to the time of his call to federal service in 1941. He was first appointed a member of the Office of Production Management (predecessor of the WPB) in 1941.

His government service includes the positions of industrial specialist on refrigeration, chief of the refrigeration unit; assistant chief and chief of the electrical appliance section; and chief of the electrical goods branch; prior to his appointment as director of consumers durable goods division in July of this year.

As director of the consumers durable goods division, Mr. Mitchell was responsible for the control of more than 100 industries dealing with the manufacture of household appliances, jewelry, household furnishings, photographic equipment, scales, office supplies, toys, sporting goods, and numerous other products.

Kiley Named Manager Of Bendix Friez Div.

BALTIMORE—Leroy D. Kiley has been appointed general manager of the Friez Instrument division of Bendix Aviation Corp. here, according to an announcement by Ernest R. Breech, president.

For the past four years, Mr. Kiley has been associated with the corporation as head of the new devices section and as assistant to Charles Marcus, vice president in charge of engineering.

He will assume immediate direction of the reconversion program and operations of Bendix-Friez, developers and producers of weather recording instruments and temperature and humidity controls and systems for industrial and home use. He succeeds A. C. De Angelis, who resigned.

Prior to joining the Bendix organization, Mr. Kiley was president of the Columbia Oil Co. in Washington, D. C.; and the Mitchell Oil Corp. in New York.

Goodrich Appoints Windram St. Louis Manager

ST. LOUIS—James A. Windram has been appointed manager of the St. Louis district of B. F. Goodrich Co.'s Industrial Products Division, succeeding George Livermore, who is retiring after 30 years with the company.

Mr. Windram joined Goodrich's industrial products sales division in 1932, according to an announcement by E. F. Tomlinson, division general manager, and has been a sales representative in the St. Louis district since 1943. He is a graduate of Pennsylvania State University.

Fenske Heads Appliance Sales for Dept. Store

DETROIT—W. F. (Bill) Fenske has been appointed sales manager of the major appliance division of Federal Department Stores, according to an announcement by Davidson Brothers, Inc., owners. Previously Mr. Fenske was associated with Kelvinator Sales Corp. for 10 years.

Federal Department Stores also announced plans to merchandise nationally known makes of electrical appliances in all 10 of their stores.

Ted Parr Joins Firm In San Mateo, Calif.

SAN MATEO, Calif.—Ted Parr recently joined the Modern Appliance Co. in the capacity of sales engineer, it was announced by Charles R. Rogers. Previous positions held by Mr. Parr include refrigeration engineer at Servel, Inc., and at Household Products Co. of Oakland, Calif.

Charles Morse III Now Vice Pres. of F-M

CHICAGO—Charles H. Morse III was elected vice president of Fairbanks, Morse & Co., according to an announcement by Col. Robert H. Morse, president.

Duties of Mr. Morse include: research patents supervision, traffic supervision, direction of the company's western pump division and of the Inland Utilities Co., a subsidiary of Fairbanks-Morse. He will make his headquarters here.

After spending seven years in the Three Rivers, Mich., plant learning production and working also in the firm's electric motors plant, the St. Paul sales department, and the scales factory in St. Johnsbury, Vt., Mr. Morse was promoted to manager of the Memphis sub-branch and then went to the diesel engine department in Kansas City.

In 1935, he was elected president of the Inland Utilities Co. Since then he has served also as assistant manager of the Beloit Works.

Leaves WPB Post**A. GORDON WOOTTON**

Formerly with WPB, he has re-joined Seeger-Sunbeam Corp. as a district manager.

Servel Appoints McAdam Asst. Chief Engineer

EVANSVILLE, Ind.—H. H. McAdam was appointed assistant chief engineer of the Servel, Inc., Electric Refrigeration division to serve under Chief Engineer C. E. Ploeger, it was announced recently.

Prior to joining Servel, Mr. McAdam was with the Brunswick, Balke, Collender Co., Muskegon, Mich., as assistant chief engineer from 1933 to 1937, and with Refrigeration Engineering, Inc., Los Angeles, as chief engineer from 1937 until his present appointment.

A. B. Cameron Named Sales Head for Cleveland Dealer

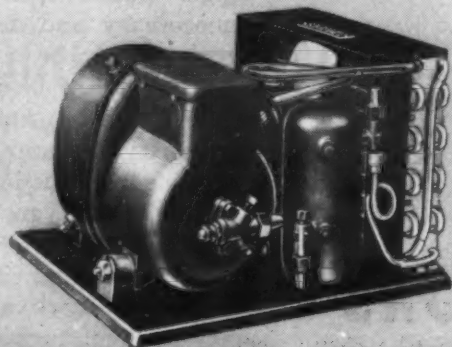
CLEVELAND—A. B. Cameron has been appointed sales manager of the Grand Home Appliance Co. here, succeeding W. L. Marshall who recently resigned. Formerly Mr. Cameron was assistant sales manager in charge of product development.

Micro-camera protects quality...

when you *Sell Servel**

***Servel's new "Supermetic" condensing units will serve dealers and fixture manufacturers in every vital field**

- | | |
|---------------------|---------------------------|
| 1. STORE FIXTURES | 6. ROOM COOLERS |
| 2. MILK COOLERS | 7. FARM FREEZERS |
| 3. HOME LOCKERS | 8. WATER COOLERS |
| 4. BEVERAGE COOLERS | 9. INDUSTRIAL COOLING |
| 5. VENDING MACHINES | 10. VEHICLE REFRIGERATION |



Among the many unusual devices that protect the quality of the Servel units you sell is the micro-photographing equipment shown above. It magnifies the object photographed several hundred times, and Servel engineers use it to check the grain structure of parts and materials used in Servel condensing units. They know that grain structures often provide a quick clue to the characteristics of materials under wear and stress. Through long years of experience, they have learned how to recognize good and poor structures. With the micro-camera they are able quickly to reject any samples or parts which do not meet their high standards.

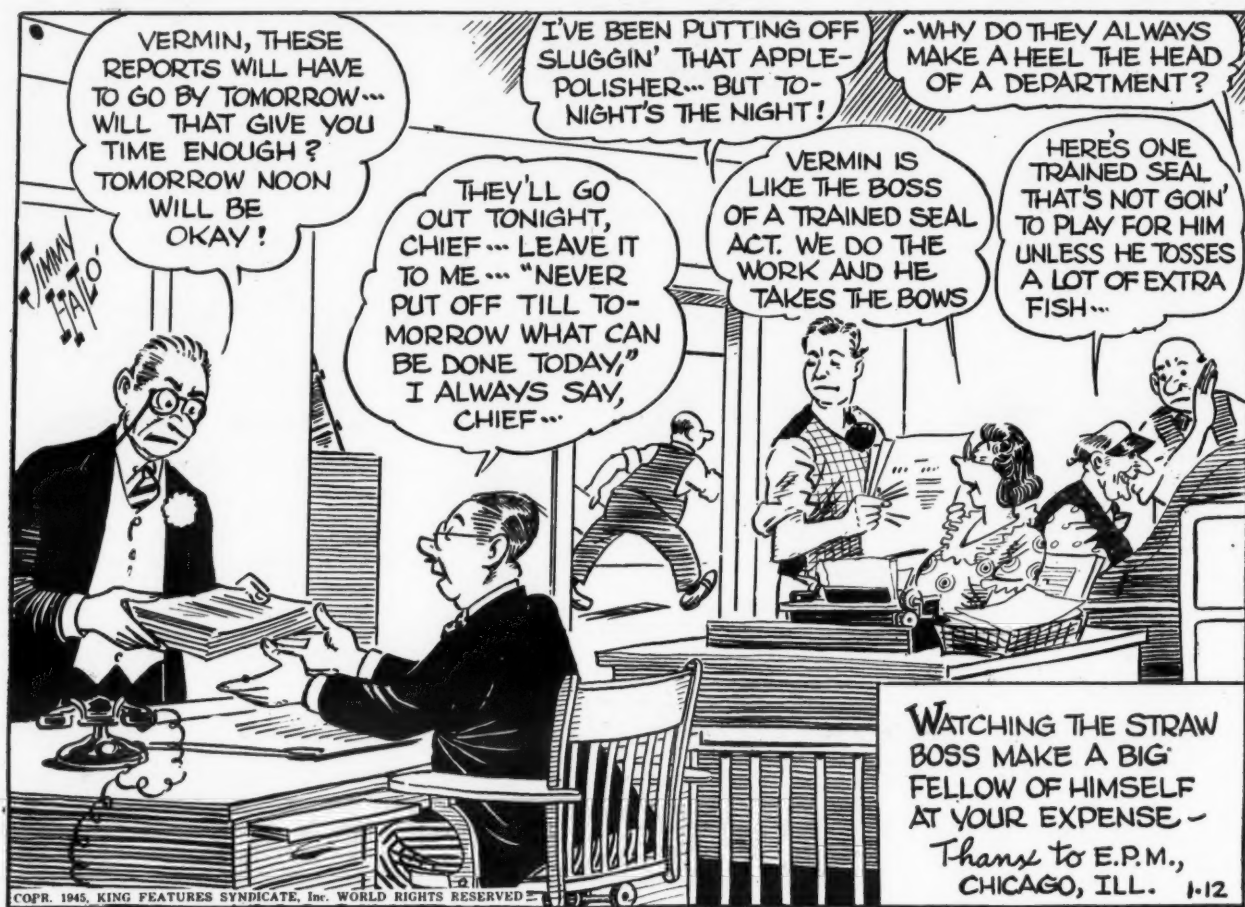
These high standards are further protected by a whole laboratory full of other technical testing devices. So you can tell customers about the quality performance and dependability of Servel units with full confidence that they'll continue to maintain their twenty-year record of leadership in the field.

Soon you'll be able to order the new Servel Supermetic condensing units. Engineered to the same high Servel specifications, they're specially designed to meet tomorrow's needs. For advance news about these new units, write today for the new free booklet, "Servel Supermetic." Address Servel, Inc., RN Division, Evansville 20, Indiana.



SERVEL, Inc. Electric Refrigeration Division, Evansville 20, Indiana

They'll Do It Every Time By Jimmy Hatlo



☆ Buy VICTORY Bonds ☆

S • PHILCO • RADIOS • REFRIGER



Yes, the great day is coming soon when the people of your community will flock to your store to get the story of the

**SENSATIONAL NEW REFRIGERATORS
AND FREEZERS FROM PHILCO**

AN INTERNATIONAL INSTITUTION • SUBSCRIBERS ALL OVER THE WORLD
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Est. 1926
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Business News Publishing Co.
AIR CONDITIONING AND REFRIGERATION News
BUSINESS NEWS PUBLISHING COMPANY • 5229 CASS AVENUE, DETROIT 2, MICHIGAN
F. M. COCKRELL, Founder

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On leave of absence to serve our country:
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Member, Audit Bureau of Circulations. Member, Associated Business Papers.

VOLUME 46, No. 12, SERIAL No. 870, NOVEMBER 19, 1945

How Much Can the Nation Afford to Spend Annually?

THE choice that the voters of this country must make regarding the amount of money which will be spent by the federal government during the ensuing years depends upon the number of services, subsidies, aids, and extras for which the people will be willing to pay.

There have been plenty of guesses as to the size of the annual postwar budget—ranging from \$25 billion for the soup-to-nuts seven course dinner, downward to the blue-plate special of \$15 billion.

A nation that was surfeited on the high cost of everything during the war might easily come to the conclusion that the \$15 billion fare is a lot easier on the stomach—and quite as nutritious—especially when the voters of this nation remember that there are other outstanding bills (debts) to pay.

Let's look at a hypothetical federal budget of \$15 billion and see if it does not furnish us with all the calories we need for vigorous postwar life.

Here's the way it should break down, according to the Tax Research Foundation:

Purposes	Amount in Billions
Interest on the public debt	\$ 6.5
The defense establishment	3.5
The care of veterans	1.5
Welfare grants to states	0.5
Independent offices and agencies	1.0
Civil departments and miscellaneous	1.0
Subtotal	\$14.0
Available for debt reduction or other purposes ...	1.0
Total	\$15.0

These estimates above are wholly within reason.

The interest on our debt, for example, is a fixed charge which must be paid—if our national credit and financial integrity is to be maintained—no matter what our future expenditures are permitted to be.

The costs for our postwar military machine should not run over the \$3.5 billion estimated; the figure for the care of our veterans is based on previous experience, and the amount for civil departments assumes that the cost will be about what it was in 1945—\$800,000,000.

We shall have to get along on a budget of \$15 billion, or less, if our postwar income payments and tax collections total only what they averaged in 1942, 1943, and 1944.

Then, and only then, we can dream of the luxury of bigger public spending than is indicated in the table above, unnecessary and dangerous though a luxury spending program may prove to be.

It cannot be repeated too often, or too emphatically, that while a large national income is an indication of general prosperity, the sure and safe way to get it is by restricted federal spending and moderate taxation, rather than by huge spending budgets which are supported by heavy taxes or by inflation-creating deficits.

A national income created by the processes of thrift, investment, work, and venturesome planning will be tough-fibered and resilient, capable of supporting all reasonable needs of government under moderate taxation.

And a national income inflated to dizzy heights by extravagant government spending will have all the substantial and enduring qualities of a cloudbank.

It's up to the voters to decide what they want.



**"FRACTIONAL TONNAGE
VALVES FIT LOW
TEMPERATURE WORK
WITHOUT HUNTING
OR STARVING...!"**

REFRIGERATION MAINTENANCE CO.
PHONE FAIRCHILD 7306
731 UNIVERSITY AVENUE
MADISON 8, WISCONSIN

"We use and like A.P. valves
especially on low temperature work.
We like the fractional tonnage sizes
because we can better fit the job
without hunting or starving."

Refrigeration Maintenance Co.
Archie
A.L. Robertson

EXPERIENCED REFRIGERATION SERVICE

Engineers like Mr. A. L. Robertson, of the Refrigeration Maintenance Company, Madison, Wis., give full credit to "A-P Dependable" Refrigerant Valves for their special adaptation to low temperature work. They find that "A-P" fractional tonnage sizes for Freon or Methyl Chloride refrigerant applications make it easier, as Mr. Robertson states, to fit the job without necessity of "hunting" or "starving" the line.

The underlying reason for the wide range of adaptability of A-P Refrigerant Valves is directly traceable to A-P testing practices. For every valve leaving the A-P factory has been tested again and again, and then precision-regulated to do its work without need for field adjusting. That means a lot to every practical refrigeration service engineer!

Write for Illustrated Bulletins covering A-P Refrigerant Valves.

AUTOMATIC PRODUCTS COMPANY

2450 N. 32nd Street, Milwaukee 10, Wis.

Export Dept. 13 E. 40th St., New York 16, N. Y.



DEPENDABLE *Refrigerant Valves*

Stocked and Sold by Good Refrigeration Jobbers Everywhere — Recommended and Installed by Leading Refrigeration Service Engineers



**A-P Model 205 Thermostatic
Expansion Valve. Capacity,
up to 1 ton Freon.**

Manufacturers of
COMMERCIAL
REFRIGERATION

Look for the **LACROSSE** emblem for Assurance of Quality and Performance.

Walk-In, Beer Dispensing and Beverage Coolers

BLUE RIBBON FARM MILK COOLERS

La Crosse Novelty Box Mfg. Co.
 La Crosse, Wisconsin

Bowen
 REFRIGERATION
 SUPPLIES, INC.

Atlanta Jacksonville
Tampa Charlotte

"The South's Largest"
 Refrigeration Supply Jobber

MECHANICAL
REFRIGERATION

THE WATCHDOG
OF THE NATION'S
FOOD SUPPLY

USE
LARKIN

Humi-Temp Forced Convection Units—
Patented CROSS-FIN COILS—Base Tube
Coils—Disseminator Fans—Heat Ex-
changers—Evaporative Condensers—Instan-
taneous Water Coolers—Zinc Plated Steel
Plate Coils—

See your jobber or write for details now.

LARKIN COILS,
 519 Memorial Drive., S.E., Atlanta, Ga.

Off the Chest

DEALER TELLS OPA HE CAN'T SURVIVE UNDER 'PIPE DREAM' CEILINGS

Radio & Electric Utilities
 Newnan, Ga.

Editor:

The day after we dispatched our letter to you with a copy of our telegram to Mr. Bowles, our first sample refrigerator arrived. In looking over the invoice on this refrigerator and adding our transportation costs, we found that we would make a gross profit of 26½%, approximately, which represents about 2% less than our actual cost to operate.

Naturally, our blood pressure spiraled upward and in order to get it below the brain hemorrhage stage, we decided to wait a couple of days before explaining to Mr. Bowles our thoughts in the matter. Accordingly,

the second telegram, copy enclosed, was sent Mr. Bowles.

We might explain also at this point that we also had to wait a couple of days to prepare our telegram as out of kind consideration to Western Union, we did not want to create a word fire hazard for that excellent agency as we might need their services some day to hurry the renewal of your excellent publication.

First of all, there are a great many people who choose to call our present market for appliances a "lush market" and believe they can shove down the throats of customers any kind of good or bad appliances at good or bad prices. In this, OPA is in complete agreement.

OVERHEAD TOP-HEAVY

We, too, recognize this opportunity but we also wish to point out that dealers have had no merchandise to sell for nearly four years and yet have continued with top-heavy overhead and have endeavored to struggle along with service prices upholding OPA on a 1941 basis.

Some of the boys, the writer among them, have lost no small amount of money in so doing, and no little sleep, and feel that if any break is coming it is justly deserved. All of us have been hampered by lack of labor and shackled by no few governmental alphabet combinations. OPA seemingly knows nothing about all of this.

In selecting the appliances we sell our confidence is placed in manufacturers and distributors whose integ-

rity and experience in the merchandising of fine electrical appliances to supply us with the finest money can buy and worthy not only of our acceptance and endorsement but our customer's as well.

Naturally our interest is to make our customers sold on the appliances we sell as one satisfied customer brings another. Furthermore, a customer who is well informed obtains from the appliance the full and intelligent use of same, and in a measure actually reduces our selling cost from a standpoint of useless service calls because the user was not informed properly.

OPA has expressed the attitude that we should hand the customer a refrigerator over the counter in a crate, take the cash, and tell them to shift for themselves. If it gives trouble the dealer can send out a service man and fix it without it costing him anything.

In this connection, just a thought about the good finance companies who are ignored and discriminated against who have helped countless thousands of people achieve the ownership of appliances which they would not otherwise have had the opportunity to purchase. None of us have to scratch our heads very much to think back a few years ago when similar Government Agencies were trying to get the public to buy and stimulate business.

WHY NO ADVERTISING?

OPA seems to forget, when they tell us to sell only to the customers who can pay cash for their purchases, that the very people who helped win the war and pay their fat salaries are the very ones they are handing a sound slap in the face. What do you think the general public would think if these facts were publicized?

With regard to advertising, it seems that in prewar years, the appliance industry contributed no little in purchasing newspaper space. Why now should OPA tell us that we don't have to advertise, which comes out of the hides of the newspapers who have courageously and faithfully donated immeasurably more free space to further the aims of OPA without any desire or hope of financial return?

This smacks of disloyalty and suggests senility. If professional politicians don't even know how to politic, how the hell can the nation expect them to know anything about pricing goods?

No doubt Mr. Bowles has an abundance of ideas in the background and perhaps he will tell us shortly

that we can use chips instead of money to pay our distributors, butchers, grocers, tax collectors, and even perhaps his salary, and that we can therefore all get everything for nothing and we can all go on a grand spree giving merchandise away, and that we should get rich in so doing, as nothing costs us anything.

Possibly he can even tell us how we can include an extra year's free service on the appliances, we sell on such a basis.

Thanking you most sincerely for your letter of Oct. 31, and particularly your helpfulness to the trade in your excellent publication which always expresses our common desire to be strong for anything which benefits our industry.

HUBERT H. HECK

TELEGRAM

Hon. Chester Bowles
 Office of Price Administration
 Washington, D. C.

With further reference to our recent telegram to which your answer has probably been lost in transit, we would like to advise that our first sample of Model LB-7 General Electric Refrigerator has been received and is priced by OPA at substantially less than comparable model in 1941 and showing a profit margin considerably below our actual cost to do business.

COSTS WILL SKYROCKET

We dealers feel that it is your direct intention to exterminate us and feel that in fairness to us you should advise us to this effect. Our cost to do business during the next several months due to scarcity of goods to sell will skyrocket upward and we can liquidate at this date to better advantage than at a later date when we will be forced to liquidate as a result of an OPA inspired depression.

Our only alternative as a defensive action to survive would be to resort to black market or other unAmerican methods which your ideas encourage as the only measure to staying in business.

Your pricing theories sound to us like a Utopian pipe dream and further feel that anyone with only meager and elemental business experience should know that retailers cannot survive on a currency exchange basis and particularly those who sell goods where frequent services are required in connection with the sale of such merchandise.

HUBERT H. HECK,
 Radio & Electric Utilities

"LARGEST VOLUME..."

A Boston distributor praises our collection service and credit policies

"Your service at all points has been excellent but the feature which stands out in my mind is the manner in which you handle collections and the timing of your credit policies."

"In my experience I have observed that there are some people in most any finance organization who know the answers, but in your local offices knowledge of your plans and policies seems to be general among all employees."

"Your offices always seem to know when to tighten up and when to loosen up a little so as to get the **LARGEST VOLUME** of business with the least chance for loss on the collections."

L. J. McAllister

L. J. McALLISTER CO.
 BOSTON, MASS.
 NORGE DISTRIBUTORS

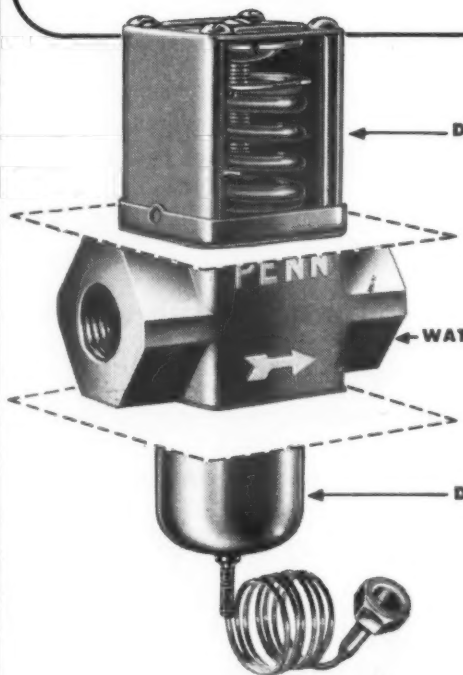


COMMERCIAL CREDIT COMPANY

BALTIMORE 2, MARYLAND

Capital and Surplus more than \$80,000,000.00

Zoned for safety!



• Here's the one sure way to keep Sedimentation, Corrosion and Rust away from sliding parts. In this new water regulator, the PENN Series 246, water flows in the center section only, never above or below. Consequently, range spring and sliding parts are bone dry—free from abrasive deposits. Valve seats can't stick, nor range springs turn rusty. Nothing here to invite premature wear.

Water hammer has been eliminated, too, and yet the valve is very sensitive to changes in refrigerant head pressure. Manual flushing is yet another feature. All PENN Water Regulators. They are built in two styles—

flanged and threaded—and in a wide capacity range. For further information, ask for Bulletin R-1986. Penn Electric Switch Co., Goshen, Ind. Export Division: 13 E. 40th Street, New York 16, U.S.A. In Canada: Powerlite Devices, Ltd., Toronto, Ont.

PENN
 AUTOMATIC CONTROL
 FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

Off the Chest

COMPANY SAYS 'NEWS' IS OF 'GREAT SERVICE'

Accesorios De Toda Clase Para La Industria Frigorifica Irala-Barri, Avenida Principal 3—Apartado 549 Bilbao

Editor:

As subscribers of your review, a few days ago, we sent you through the mail as registered packet, the Golden Book of our business, as we thought it could be of interest for you, as our reference and for your file, as you will be able to appreciate by it the progress of our business.

At the same time, we profit of this opportunity to congratulate you for the victorious end of the war, and we also wish you a continuous success of your publication, which we hope that from now on, we shall receive with regularity, as it is of great service for us.

With best greetings, we remain dear Sirs,

SUMINISTROS FRIGORIFICOS, LTDA.

FLORIDA DEALER PAGING REFRIGERATOR MECHANIC

Capaduca Store Fixtures P. O. Box 921 408 E. Wright Pensacola, Fla.

Editor:

Would like a veteran expert refrigerator mechanic. If you know of one will you please give him our name.

A. CAPADUCA

WANTED: REFRIGERATORS TO ASSEMBLE AND SELL

The Indieri Refrigeration & Air Conditioning Co., Inc. Atmore, Ala.

Editor:

As you perhaps know, we have formed a company, though small to start with at \$100,000.

However, due to the war, we were unable to do much; first, because we could not obtain the necessary materials and secondly, we did not have the proper location to build.

Now we have not only the location,

but can obtain the materials. It is indeed a starting point. And too, the officials of this state; the governor, for instance, Millard F. Caldwell, has indeed encouraged us, as to its locality, as well as the use and benefit of all the farmers here at Pine Forest, Fla.

The Frisco Line, too, has offered their support and cooperation. We have secured five acres of land across the main switches of the Frisco Line—splendid location—seven miles from Atmore, Ala. and 45 miles from Pensacola, Fla. In conclusion, and to the best of my own knowledge and belief, the possibilities are No. 1, and we cannot fail.

Now I would like to get in touch with a refrigerator company in Detroit, shall we say, a company who builds refrigerator boxes of any size, in order that we can assemble them here and sell it to the farmers here in Florida.

We shall have not only the space, but the facilities to do the assembly.

Of course we are in no hurry. Perhaps there are such refrigeration companies who would find it not only profitable, but it would also facilitate their products as well.

Personally, I am well acquainted with refrigeration, especially since I do possess three patents, in my name, for a new and novel method of refrigeration—in which I have already spent approximately \$25,000 for research and experimental work.

I would also appreciate the name and address of a young refrigeration engineer, mechanically inclined, for the position of chief engineer.

ALEXANDER F. INDIERI, President

WANTS STANDARDIZATION OF TRADE-IN ALLOWANCE

Commercial Refrigeration, Inc. 269 W. 5th St. St. Paul, Minn.

Editor:

The appliance dealers of St. Paul are in the process of forming an appliance dealers association and one of the subjects discussed at our preliminary meeting was the matter of trade-ins.

We all realize that this is a very serious matter at the present time due to the decreased margin of profit that the dealer will be working with, and we believe that some effort should be put forth to standardize on a reasonable trade-in allowance program.

The writer is on a committee appointed to work on this matter and we were wondering if your organization might have some information available along this line.

We have written to the National Refrigerator Market Report, Inc., of Philadelphia to find out if they have anything current to offer and are also considering using the OPA Regulation No. MPR 139 as a guide but would also appreciate any further suggestions or information that you might offer.

J. C. EHLERS

Answer: We suggest that you read very carefully the New Refrigerator Price Order No. 598, which was published in full as a supplement to the Oct. 29 Bulletin Edition of the NEWS, and that you also read the explanatory story that was published in the Nov. 5 issue.

Please also keep in mind that Maximum Price Regulation No. 139, governing used household mechanical refrigerators, is still in effect.

Order No. 598 says that no trade-in will be permitted which is "less than its reasonable value." Some efforts are being made to see if this "reasonable value" can be expressed as a percentage of the price set in MPR 139.

For the time being, at least, we believe it will be necessary for dealers to conduct their trade-in business under the OPA regulations.

WHAT FREEZERS OPERATE ON PROPANE BOTTLE GAS?

Burmester Oil Co. Highway 212 & 4th St. Stillwater, Minn.

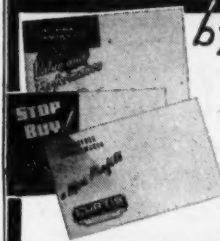
Editor:

Please send me information as to where or what company manufactures home freezers that are operated on propane bottle gas.

Any information you can give will be greatly appreciated.

JIM BURMASTER

REFRIGERATION by CURTIS



Write for complete information.

Bulletins C-14-M, C-58, C-68-C

CURTIS REFRIGERATING MACHINE DIVISION of Curtis Manufacturing Company 1912 Kienlen Avenue • St. Louis 20, Mo.



Our engineering department is always at your service. See your telephone book for nearest representative . . . or write.

Freon Condensers • Dry-Ex Water Coolers • Evaporative Condensers • Forced Convection Units • Oil Separators • Liquid Receivers • Heat Exchangers • Pipe Coils • Hi-Peak Water Coolers • Flooded Water Coolers • Ammonia Condensers.

Write for catalog on any item

ACME INDUSTRIES Jackson, Michigan

ANSUL



ST IN REFRIGERANTS

Ansul was first in America to produce Sulfur Dioxide for refrigeration (1915).

At the demand of the growing fractional-tonnage household refrigeration industry, Ansul began production of Methyl Chloride.

Ansul still analyzes individually every cylinder before it is shipped because—

The purity, dryness, and safety of handling of Ansul refrigerants are still top standards of a high-specification industry which Ansul is proud to have pioneered.



REG. U. S. PAT. OFF.

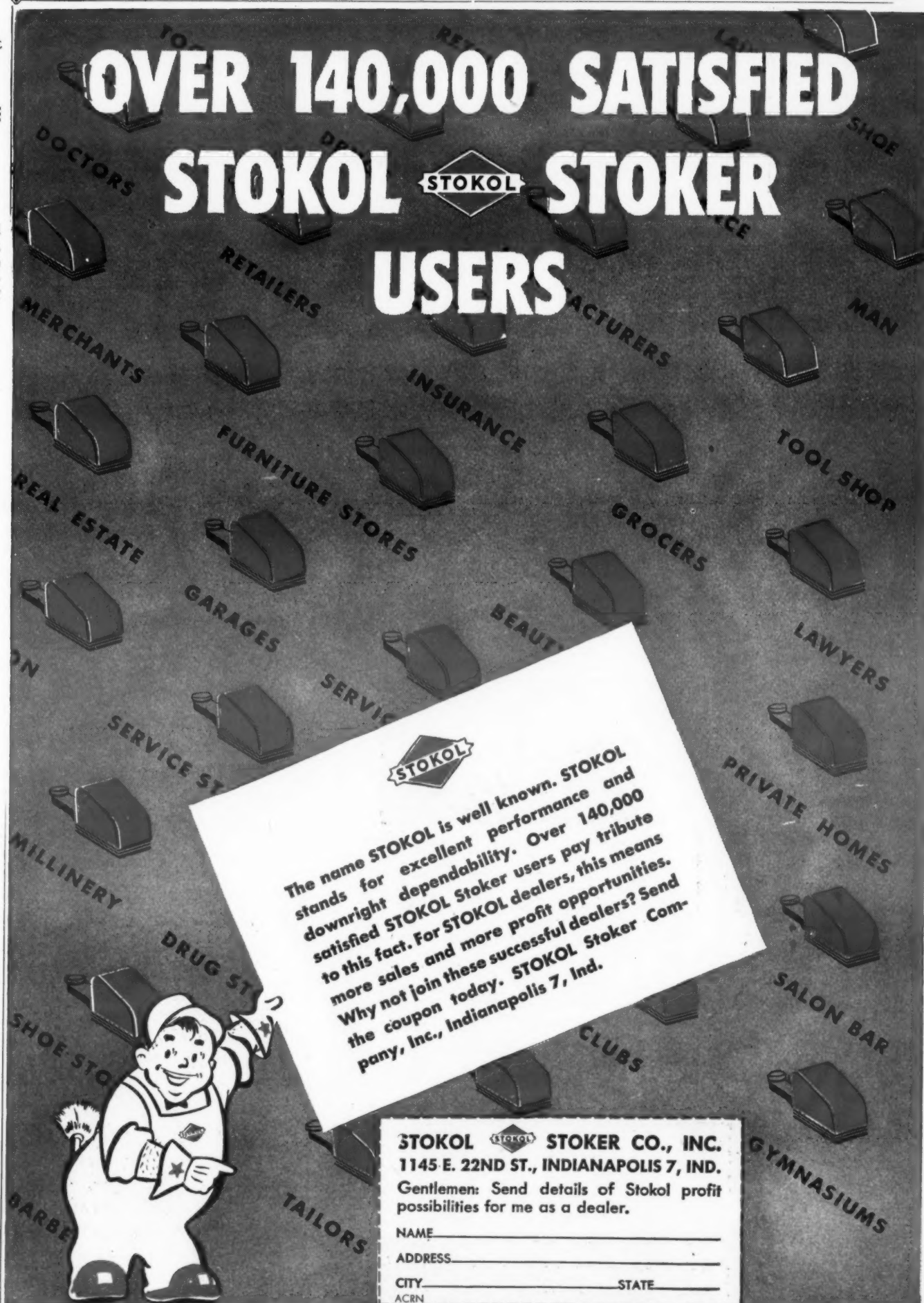
ANSUL CHEMICAL COMPANY

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Here Are Answers to Many Problems Faced by Appliance Retailers Today

Earlier this year Proctor Electric Co., prominent manufacturer of small appliances, held a "Postwar Retailing Clinic," in which dealers, a wholesaler, company executives, and promotion experts were gathered together to "toss ideas into the pot" on problems of retailing appliances.

Because many of the problems discussed, particularly those dealing with sales personnel and salesmen's compensation, affect retailers of both large and small appliances, the NEWS is publishing some excerpts from the complete report of the clinic recently made available.

In conducting the clinic, questions were set up and handed to one dealer for formal discussion, and then other dealers were called on for their comments. The questions are published in italics:

Can house-to-house canvassing be made to pay in selling appliances?

Mort Farr, a dealer, was called on to discuss this subject. Mr. Farr said, in part, "Some years ago, when electricity was not recognized by the average housewife as the cheap, efficient servant they now know it to be, a program of education was necessary."

"Today, it is not necessary to tell the women of America the advantages of doing things electrically. Now it is only a question of brand preference, created by the manufacturer, or a feature that appeals. The need then is for a sales person with a knowledge of the particular product at the point of display."

Door-to-Door Canvassing

"So much door-to-door canvassing was attempted just prior to the war," claimed Mr. Farr, "that many people who were really interested in the various commodities offered, shied away from those peddlers because of unethical and high-powered tactics practiced by some. Many sales of even major appliances were prejudiced by this type of sales presentation."

"It would not appear that a person could make an income in keeping with the standards of high-class small appliances on the commissions possible on the sale of this merchandise at competitive prices. Even in the best days of major appliance selling, rare was the retail canvasser who earned a living wage. Personally, I don't believe that the thousands engaged in this selling ever averaged an income of \$1,000 per year."

Another dealer, Sol J. Phillips, found his experience pointed in the opposite direction.

"Well, I have had a lot of experience, both in canvassing and in supervising an outside crew. There is

nothing, in my opinion, to take the place of house-to-house canvassing. I believe that we will have to resort to that type of selling."

"It is damn costly, but if you want results, you get them that way, beyond question," stated Harry Kauffman.

"What should outside sales cost at the most?" Mr. Kauffman was asked by Louis Lefkoe.

His answer was, "We pay our supervisor 3% of all business done in the electrical department."

"An override in the entire department?" questioned Mr. Phillips.

"In and out. I give him a drawing account against that, besides a livable wage, and I would say that he earns anywhere from \$6,000 to \$10,000 a year."

"Your salesmen gets a commission?" Mr. Lefkoe asked.

"Yes, we pay him 10%. The salesmen use their own cars. As an added incentive, we give them an extra 1%, making it retroactive, if they hit \$1,000 a month."

"On appliances or furniture?"

"I couldn't keep good men on appliances only. I have to give them furniture with it. But the supervisor has nothing to do with the furniture sales—gets no override on that at all."

"I don't know what the postwar condition is going to be," dealer Charles Barwis declared. "I don't know what my true competition will be. But I feel that I have only one choice, and that is to work with outside men and cover a very large territory or get out of where I am at the present time."

"We always paid a salary and a commission, and the man sold everything that was in the store. There was no specialty appliance selling. It was all associated items. And he did no direct canvassing. He developed his prospects from his former customers and his friends."

As to whether he paid as much on electrical appliances as he did on furniture, Mr. Barwis replied:

"No, I paid 9% on electrical appliances and 20% on furniture."

Mr. Farr expressed the opinion that, "In small appliances, the average price will be \$10. If you pay 15%, that's \$1.50. A man will sell, on the average, no more than four a day, and that would give him \$6, and he has to eat and run a car. You can't sell more than four \$10 items in a day to save your neck, so what's the use of even talking about it?"

Items to Include

What items, electrical and non-electrical, should a dealer include in his stock to attract traffic business and insure maximum profit from over the counter items?

"In tying up electrical and non-electrical items, try to bring them in line with your general setup of operation," asserted Samuel Goldberg, in the formal discussion on the subject. "Don't try to outdo yourself and carry, as the saying goes, 'everything under the sun.' You will defeat your purpose and eventually find yourself falling into the category of a small general store instead of building yourself up to the enviable reputation of becoming a substantial electrical appliance dealer."

"I expect to display small appli-

ances prominently, with somebody in charge," Mr. Farr suggested. "Somebody not like those salesmen selling the major things, but more like the record girls who have the records as their major interest; somebody who will be interested in the sale of appliances and keep them up."

Separate Departments?

Is the small appliance business of sufficient importance for a dealer to establish a separate small appliance department and what are the minimum requirements?

A. C. Darmstetter started out the discussion by saying, "I should like to define a small appliance department. It can be defined in two ways; first, a small appliance department can consist of the usual electric items such as toasters, irons, etc. Or, second, it can include small radios, sun lamps, electrical shavers, large types of room heaters, etc. To say it differently, a small appliance department can consist of electric items selling up to about \$30 to \$35, or it can comprise items selling for up to say \$100."

"The first consideration is the type of store and volume necessary. In a store doing less than say \$100,000, I feel that there is not enough store traffic to warrant a separate department of only small appliances. I feel that in order to make the department self-supporting you should do a business of at least \$20,000 to \$25,000 in that department to carry the necessary overhead including salesmen. If you are selling items as above described from \$35 down, this volume of sales would be out of proportion to the total sales of this store."

"You cannot make a small electrical appliance department pay as a separate department as long as you have nothing exclusive or outstanding to build upon," Mr. Darmstetter continued. "Take the matter of electric light bulbs. I find that the average annual purchase for use in a home averages a dozen bulbs. This would mean an average of about a dollar and a half per home."

"There are about 12,000 electrically wired homes in Lancaster. That would mean about \$18,000 worth of bulbs sold per year. There are about 500 stores, as near as I can get the figures, selling electric light bulbs in Lancaster, or an average of \$36 per store."

"Not much volume here, is there? On the other hand, we specialize in the sale of specialty globes; projection globes; infra-red, photographic bulbs; which, of course, require sales people who are familiar with this type of merchandise. Our sales run several thousand dollars per year."

"Here is another side that works to the disadvantage of having an exclusive or separate small appliance department in the larger stores. We discovered that it became a beautiful showroom and demonstrating department for the dozens of small, so-called electric shops in which the owner or proprietor has his front room or garage fixed as a small electric store run by a member of his family while he is out doing electric work. Many is the time when we were pressing to close a sale only to receive the answer, 'Mr. X sent me in to see it, he says he can get it for me at 10% off.' This has led us to take our items as we get them and spread them around wherever we

(Continued on next page)

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Where to Display the Small Appliances? How Should We Compensate Salesmen?

(Continued from preceding page)
think the public will see them to the best advantage, and find we make the greatest sales that way."

"I am very fond of establishing a separate department," Mr. Barwis stated. "My experiences have been that we have lost a lot of time running around to different spots in the store where items of a similar nature would be displayed. I choose to eliminate that. Maybe I will be able to cut down my sales force slightly and do the same amount of business or more."

"But I don't believe a dealer should go into an extensive department at a lot of expense unless he can do a minimum of \$20,000 worth of business per year, although I believe any dealer who chooses to carry small appliances should arrange for some type of small, attractive display."

Who Should Sell

Should everybody in the store attempt to handle the customers for traffic items?

"We have two people on our floor, whereas we had five," Mr. Phillips said. "At that time, we trained all our inside help to handle all trade for every department in the store. But I think it advisable to train someone particularly for that department."

"Compensation is always an incentive. I mean extra compensation for extra sales. If you compensate your

help in proportion to the sales they make, I think they do better work and become more efficient. We have always given a bonus for certain sales."

Is it practical to compensate small appliance sales personnel for leads resulting in the sale of major appliances?

"The salesman usually paid a commission to the sales person, which in most cases he was glad to do, and it always worked out very well," said Mr. Phillips.

Compensation

Should major appliance salesmen receive compensation for selling small appliances?

"No, we never paid any salesmen for small appliances," stated Mr. Phillips. "We felt that he could use that same effort and time on a radio or refrigerator, and probably sell a large item with no more effort than he would an iron or toaster or roaster."

What is the best location for the small appliance department, and how best can small appliances be displayed?

Mr. Barwis answered this one. "This is special merchandise and deserves special first-floor position. It should compel interest of any customer who enters the store whether

or not they are interested in appliances."

"We have found that 75% of the public entering the store stops about 10 feet inside the door. This makes it necessary to keep a front man on duty at all times, or take the chance of losing the prospect."

"We can think of no more suitable spot for our appliance and gift department than right at the front of the store, where so many of our customers stop and get no farther. To get this business, we plan to display a full line of small and major appliances and gift items that were previously scattered throughout the store."

Mr. Darmstetter had a slightly different opinion on this subject. "Things we can sell a lot of, such as appliances, we put out of the roadway, back in the corner. For instance, our store is almost 300 feet long. Most stores of our type have the record department right in front of the store. Ours is in the back part. The young people who want to hear records must walk the entire distance of the store. The photographic department, which is also a big department, is three quarters of the way back. The junk that doesn't sell so well is up forward. Ninety per cent of our stuff is out where people can handle it, except high-priced cameras and some other expensive things."

"Our model kitchen is up on the second floor, away from the crowd, where we can get people up there and talk to them without being interrupted."

Should a dealer maintain an over-the-counter service department, parts stocks, etc?

Harry Levin declared, "In our experience this department has been profitable. However, in normal times, I do not think the repair department should be counted on primarily as a profit producer. Its most important functions should be:

"(a) to create additional floor traffic (remember every repair requires at least two trips through the store; first, when the appliance is brought in and secondly, when the customer returns for his repaired appliance),

"(b) to create a feeling of good will and trust in the store, which can be used as a basis in promoting future appliance sales."

"As for major appliance sales, a customer well pleased with the way you handled his toaster repair will subconsciously feel that he will get service satisfaction if he buys a refrigerator."

"The fact remains that if you don't do it, the fellow across the street does do it, and you want to build up your business and traffic and regardless of the reason, every customer you get in your store is traffic," believes Mr. Darmstetter.

"There have been many cases where people have come in wanting to buy a part for an article, and with a little bit of sales talk, they leave the thing. Every item you can handle, anything you can do to bring people into your store you want to do. Why send them to the five and ten cent store or the store across the street? You can have a small variety of items, parts, for them to buy, and when they come in you have a chance to talk to them and say, 'Let us do it. We can do it better and handle it better.'"

Which types of advertising and sales promotion materials produce the best results was the next question discussed.

Mr. Farr expressed the thought that "an awful lot of high-priced sales material furnished by manufacturers has gone into the wastebasket."

"It seems to me that more dignified, smaller displays that can be put in the window would be more appropriate. I think, too, that if there are any special features of an appliance that you want to impress on the mind of the public—some part of the appliance that can be exposed—that is very fine. I well remember Westinghouse's use of this idea, or the Norge Rollator. They showed people the mechanical workings of these things, and people remembered them."

"It is also important to show them something they can get their hands on, something they can push around or monkey with. If they can get the 'feel' of some part of it and get interested in it, it attracts them to it."

"But I feel that the sales material we need most should be more dignified than what we have gotten in the past, great big backgrounds and large pasteboard things."

Newspapers were the best as far as Mr. Darmstetter was concerned.

"I have tried all the forms, and I feel the only real, honest-to-goodness, all-around advertising medium for the individual dealer is local newspapers."

"The things we could use are things like a nice price tag for the window, pricing the merchandise itself with a nice little tag, a little circular to put in your statements, a few things of that sort."

"I like newspaper and radio," Mr. Lefkoe said. "The little car advertising and billboard advertising I have found haven't done me any good. At least, I don't think so. I think the large displays are a waste."

"I would like very much to encourage the price ticket idea. I mean something very attractive, something very nice that a man can use to fill in his own prices."

Accounting Practice

What is good accounting practice for the small appliance department? How does it share in general overhead, rent, insurance, etc? Is it charged for space occupied? On what basis? How do you know that your small appliance business is profitable or unprofitable?

"I will try to outline how a department for small appliances, or any department, can be handled to share in expenses," Mr. Lefkoe asserted. "We, in our own business, have found it very satisfactory."

"Weekly, monthly, and annual goals are set up at the beginning of our fiscal period and are scientifically adjusted throughout the entire year. These budgetary estimates are compared with actual performance statistics and investigated immediately if there should be an impressive divergence upon receipt of weekly reports furnished by the head of each department."

"We find that if our inventory is properly proportioned and displayed that our goals are usually achieved. Our inventory card systems in addition

(Concluded on next page)

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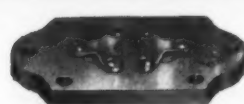
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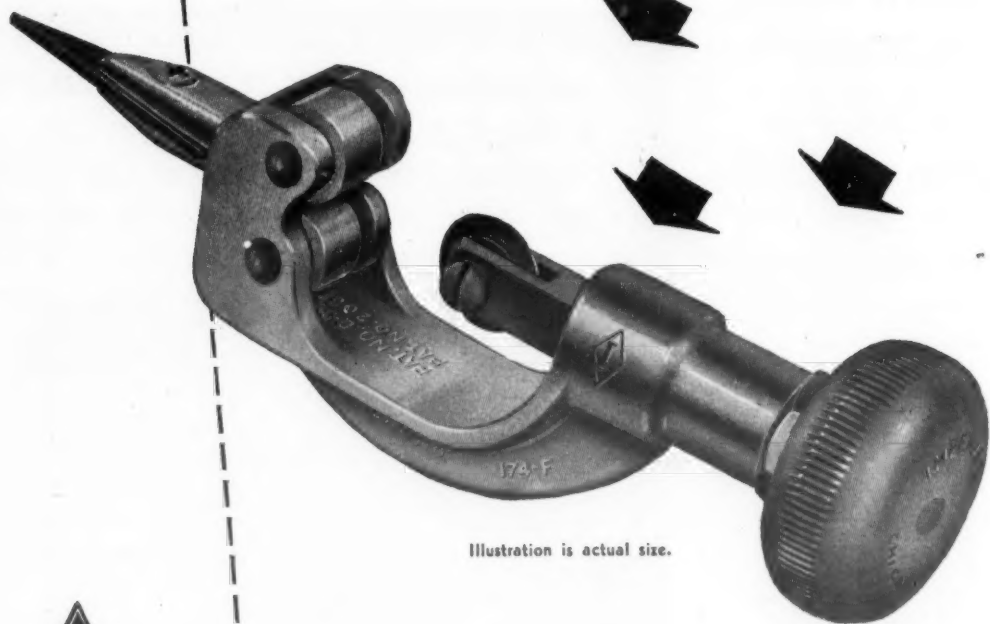


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What Is Good Accounting Practice For the Small Appliance Department?

(Concluded from preceding page)

tion to controlling quantities for inventory purposes also furnishes us with an opportunity to analyze our purchases and sales of individual items and thereby enables us to keep a well proportioned supply of each item on hand at all times.

"The real test of any departmental accounting system is the proper allocation of expenses to each department. Extreme care must be taken, and constant vigilance is necessary, mainly in the proper allocation of indirect expenses.

"We have adopted the Controllers' Congress Plan for expense distribution and make a complete departmental distribution of all expenses," Mr. Lefkoe maintained. "The breakdown follows: Administrative, Occupancy, Publicity, Buying, and Selling.

Charging Expenses

"All expenses are arranged under the proper division and then charged proportionately to each department in accordance with a base or ratio previously ascertained.

"Let me cite illustrations.

"Executive office salaries, general office salaries, and cashiers salaries are charged to administrative on the basis of dollar sales of each department. The total of these salaries is accumulated until the end of each month and then divided by monthly sales and the ratio is our basis of distribution in accordance with the amount of the sales of each department. The cost of credit office salaries is distributed to each department in the same manner against Charge Sales only of each department.

"Auditing salaries are distributed in accordance with number of transactions of each department. Accounts payable salaries by number of invoices and returns, and accounts receivable salaries are charged by number of charge transactions in each department.

"Light and heat is distributed in accordance with area occupied. Depreciation is charged in accordance with fixture valuation of each department.

"Insurance on merchandise is charged on basis of average cost of inventory, whereas insurance on buildings becomes part of cost of rent and is charged, with space occupied, in accordance with a space valuation plan. Insurance on fixtures is distributed in accordance with fixture valuation.

"Institutional advertising and mailing lists are distributed on a basis of sales of each department, and cost of direct advertising, advertising supplies, advertising postage, signs, and window displays are charged directly to each department.

"Wrapping and packing is distributed by package cost and deliveries by a weighed schedule.

"Compensation of buyers, assistant buyers, sales persons, stock clerks, etc. are direct charges, and interest on borrowed money is charged on average inventory carried in each department.

Is Department Profitable?

"It is only by following a comprehensive accounting system that we are enabled to estimate whether a department is profitable or unprofitable.

"Sometimes a department may show a loss and still be desirable as a stimulator or sales in other departments or create good will.

"In our own case, our small Electrical Appliance Department certainly has been a stimulant of sales in all departments.

"We are firm believers that electrical appliances have a very definite place in the sales picture of the

installment jewelry field, have brought new friends, and generally stimulated every other department."

In answer to a question as to how many of the dealers broke down their small appliance department charges and isolated them as Mr. Lefkoe did, or in a similar fashion, Mr. Phillips declared that:

"We have daily, weekly, monthly, and yearly figures of everything sold in the small appliance, record, or refrigeration departments, telling us exactly whether we have made a profit or a loss in each department."

Mr. Oliver then asked, "Do you, in advance, charge the small appliance department with a certain percentage?"

"No, we don't charge it with the space it occupies. We own the building and don't pay rent. We pay taxes, of course, but we don't charge that to the particular department."

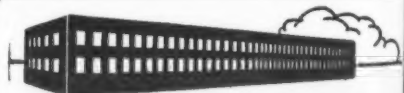
Mr. Goldberg explained, "We break down our setup in so far as operating the small appliance department is concerned, but don't go into it in a comprehensive manner like Mr. Lefkoe states. We separate it from major appliances, and charge the general overhead costs to those sales."

Distributor's Viewpoint

"I would like to say a word about thinking from a distributor's viewpoint," J. T. Peirce of Peirce-Phelps, distributor, began. "I think distributors do more thinking about their businesses than most others. There are some dealers, in fact a great many, who do a great deal of thinking, particularly the department stores. And I am sure all of you in this room do a great deal of thinking. But the rank and file of the retailers don't do so much.

"When I talk to dealers about this, I usually get the reply, 'Well, I don't have time.' I assure you fellows that we distributors don't have time either. But I think it is a very important part of your business. I told some of you how Mr. Carmosin works. He goes through his departments with his buyers. He checks his stock records, sees what isn't selling, and then goes on the floor and finds out why it isn't selling. Very often it may be the location of the piece of merchandise. It may be the price. He doesn't waste time. He moves it to another location and sells it out in no time.

"Don't you have a responsibility as the owner of your business of being your own merchandise manager? It seems to me that is one of the most important functions you have, and that almost daily you should take time, regardless of salesmen or customers, or anything else, and walk around your store and find out what is selling, what isn't selling, and why it isn't selling."



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(Concluded from Page 1)

at the Statler hotel, and the R.S.E.S. at the Hollenden hotel. It will be wise for those planning to attend to make their reservations far in advance of the meeting, Mr. Thorndike advised.

The enlarged credit program that Rema has developed was outlined to the membership by F. K. Zimmerman of Lynch Mfg. Corp. Purpose of the credit program is to find out by group action of the members the payment pattern, general business stability, and the "credit character" of the customers of the Rema companies. This information is not only helpful to the member manufacturers in enabling them to determine to whom and how much credit should be extended, but it gives them information which makes it possible for them to make moves to avert the financial ruin of their customers.

CREDIT PROGRAM OPERATION

The credit program operates broadly in the following manner:

Around the twenty-fifth of each month, member companies submit names of customers on whom they desire credit information. These names are tabulated on sheets and sent out to the other members who participate in the credit program. Information is then submitted by the other members covering the following points: amount of credit extended, amount owing, and amount past due. This information is then summarized in the office of the executive secretary of Rema and is passed along.

In its enlarged credit program Rema will publish semi-annually a "Paying Guide" providing information on high credit advanced, paying habits, etc., of all customers sold by four or more member companies of Rema. The Paying Guide will also provide a business history of the customers and of the officers of the customer companies.

While this present activity is being handled through the offices of the executive secretary, Mr. Zimmerman believes that the program is rapidly approaching the point where it will need the attention of a full-time association credit executive.

REMA'S PUBLIC RELATIONS

The nature and scope of Rema's public relations program was outlined by Theodore Sills of Sills, Inc., public relations counsel which is conducting the program. Mr. Sills revealed how specially prepared copy was made available to newspapers, magazines, and the radio to get across the story of the part that refrigeration was playing in everyday living, and in the advancement of living standards.

Exhibits were shown of some of the newspaper and magazine stories that had been obtained, and Rema members were treated to a recorded version of a radio interview over a New York City radio station, starring E. M. Flannery of Bush Mfg. Co., an officer of Rema. All were in agreement that Mr. Flannery had a brilliant future "on the air" if he so choose.

F. J. Hood, Rema's president, stated that the board of directors had approved a continuation of the program, had asked for a general expression of opinion of the membership, which proved to be very favorable. Other associations in the industry had expressed interest in the program, Mr. Hood declared.

The papers given on the "Sales Management Session" at the meeting will be reported in a later issue of the NEWS.

Lehigh Completes First Condensing Unit; Will Limit Line to 2 Sizes This Year

LANCASTER, Pa.—A production schedule set on May 1 was met "right on the nose" by the refrigeration division of Lehigh Foundries, Inc., when its first postwar commercial condensing unit was recently completed.

Lehigh reported that except for a few minor parts bottlenecks, it is now ready to go into mass production on a ½-hp. compressor, and on a ¾-hp. unit, the two sizes to be manufactured for the balance of the year. Several thousand units will be turned out in the next few months, the firm said.

A complete line of compressors which will include ¼ to 5 hp. sizes will eventually be manufactured.

Completion of this first assembly climaxed several months of "speedy" reconversion of the condensing unit manufacturing facilities acquired by Lehigh from Merchant & Evans Co. May 1.

In addition to commending workers who helped make the complete reconversion in what was called "record time," J. C. (Jack) Miller, general manager of the refrigeration department, singled out the contributions of A. Banyai, who designed the compressor assembly; Paul Flamand, production manager; and E. Griest, vice president in charge of manufacture.

The company said its foundry capacity was approximately doubled by the recently completed negotiations with the RFC for operation of the electric foundry adjacent to its properties in Easton. This foundry was erected by Lehigh in 1945 for additional shell production.

All castings will be made, normalized and, in some cases, rough-machined in Easton, Mr. Miller stated, and all final machining, assembly testing, and shipping will be done in Lancaster.

Lehigh Executives Examine First Model



Jack Miller, general manager of Lehigh Foundries' refrigeration division, points out features of the company's new condensing unit for (left to right) Paul Flamand, production manager; E. E. Griest, vice president in charge of manufacturing; A. Banyai, chief engineer.

"... fashioned staunch and sure
As wrought to Serve and to Endure"

*DEW FREEZE FREEZER CABINETS for Homes, Farms and Institutions

• The property that lifts this new line of freezer cabinets completely above the dead level of mediocrity and sets it in a class by itself is precisely the same property that makes one man "stand out" in a group of other men—

Character. It's the most baffling and subtle thing in the world because it's intangible. It's the *Vision* that can see beyond the profits of today; the sense of *Responsibility* that cannot compromise with considerations of expediency; the dignity and the pride of master *Craftsmanship*; fine *Personality*; bed rock *Integrity*

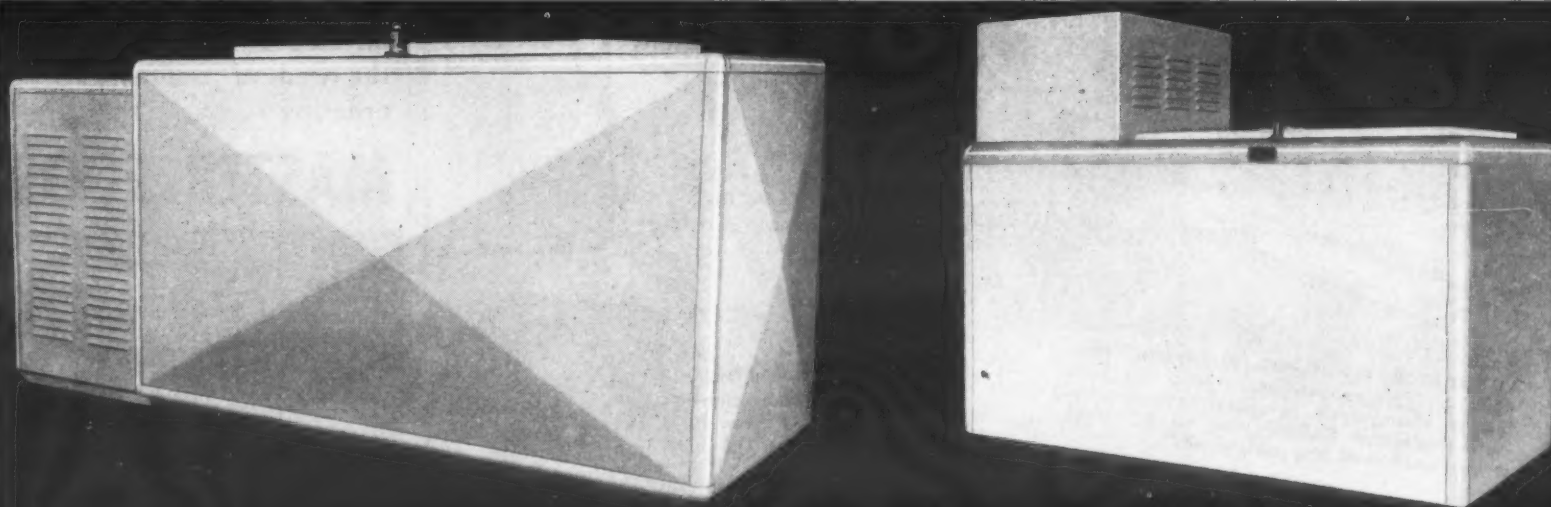
... in other words, the distinguishing features of the **THOROUGHbred**.

Are you interested in identifying your business with such a line of freezer cabinets? If so write or wire either office for particulars. For companies able to handle car load lots we have a very attractive proposition. Production is going forward steadily and shipments can be made on a dependable schedule.

GEORGE I. HAUKE COMPANY, 2651 Washington Avenue, St. Louis 2, Missouri
ENGINEERING SERVICE, Inc., 1311 W. 80 St., Cleveland 2, Ohio

Model 15

Model 20



GENERAL INFORMATION—condensed for quick reading

There are two models of Dew Freeze Freezer Cabinets, both illustrated. As far as appearance goes the pictures speak for themselves. Here are the vital statistics:

Model 15 Capacity, 15 cubic feet. Width, 27½"—Height off the floor, 34½"—Length, 80".

Model 20 Capacity, 19½ cubic feet. Width, 27½"—Height off the floor, 34"—Length, 75". Height of deck mounting, 14".

Construction All metal throughout. Both models equipped with the sensational Hubbell-Yoder Full Flooded Refrigeration Plates. 5" insulation. Outside finish, baked enamel.

Performance Both models engineered to maintain a temperature of -25° with remarkably low current consumption. Operation is very economical indeed.

Price Obviously this is not a "price proposition." Nevertheless modern production methods and a highly efficient organization are able to keep the prices of these exceptional units in line with current conditions. Dew Freeze Freezer Cabinets are priced to sell in a competitive market.

CORDLEY
Electric Water Coolers

CORDLEY & HAYES
FOURTH AVE., NEW YORK, N. Y.
Sells drinking water equipment for 56 years

Ask Your Jobber for
HASCOBILT Parts
SUCTION and DISCHARGE
VALVE, DISC, REEDS and SPRINGS
for Conventional and Hermetic Type Compressors.
HASCO, INC. If your jobber can't supply you, send
GREENSBORO, N. C. for illustrated catalog and price list.

Rebuilding and Exchange
REFRIGERATION PARTS
REPAIRS AND EXCHANGES ON
• COMPRESSORS • EVAPORATORS
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AND OTHER ITEMS
FULLY ILLUSTRATED CATALOG OF VALUABLE
INFORMATION AND PRICES SENT UPON REQUEST
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Send Today for This Useful Catalog
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Electrimatic
AUTOMATIC CONTROL
VALVES AND REGULATORS
2100 INDIANA AVENUE - CHICAGO 16, ILL.

Frozen Foods Producer Consolidates Freezing & Storage Into Single Area

FRESNO, Calif.—Much time formerly wasted in moving fruits and produce around from leased cold storage space to processing plants has been eliminated in the new "frozen foods center" of Loughhead Frozen Foods here.

Consolidating all steps in frozen food production into a single area, the "center" consists of three buildings. Major production is housed in a single unit which begins with a fruit and vegetable processing room for cleaning and preparing loads received directly from the grower. Operating on 100-ton "lots" the cleaned foods move into a large pre-cooler which reduces the temperature of fruit or produce as specified before freezing.

Quick freezing is by means of four concrete subzero "tunnels" down the center of the building, which provide 32° below zero temperatures. Coils have been completely done away with, by utilizing separate blowers in each tunnel which force 30,000 c.f.m. of refrigerated air through.

Foods under sharp freezing are stacked on wheeled pallets which engage a slow-moving chain down the tunnel floor. Twenty-five tons per 24 hour period are moved through each tunnel at a microscopic rate of speed.

After sharp freezing the produce or fruit moves directly into the sub-zero holding room connecting with the tunnels, where it is stacked in refrigerated bays to await loading into trucks or railroad cars at the dock behind. One hundred tons per

day production is the ultimate capacity of the plant, still under construction. By incorporating all steps into this straight-line process, hundreds of hours per month can be saved, according to the management. Refrigeration of the three types described is furnished by six 100-hp. ammonia compressors.

In addition to the straight-line production plant the Loughhead organization has completed a brick-and-concrete cold storage plant of 120 x 60 ft., which also contains sharp freezing facilities in four 30 x 30 bays. Separate blower units which may be enclosed by sliding partitions can transform any section into a quick freezing unit, thus adding extra versatility to the frozen foods center.

Bakery Substitutes Freezers for Ovens

OAK PARK, Ill.—Freezers have superseded ovens in the baking establishment of E. Gordon Male, who now concocts thousands of uncooked frozen fruit pies, angel food cakes, muffins, cookies, and rolls each week.

The various delicacies are packaged and held in storage at the Frigid Dough Products Co. or shipped to frozen food dealers, said Mr. Male.

Most dough products must be kept at low temperature in a freezer unit, but quick-frozen pies may be held in an ordinary refrigerator for six days and cooked dough for 60 days, he explained.

Mr. Male expects his store to be the forerunner of other similar ventures throughout the country. Wholesale distribution plans are being worked out, and when sugar restrictions are lifted, he plans to increase his line of ready-to-bake products to include frozen frostings and fillings.

New Plant For Chino

CHINO, Calif.—Chino Food Lockers is the firm name under which Allan T. Stover and William W. Stover have published a certificate that they are conducting business at 349 Sixth St., here.

Gov't Conducts Research On Freezing of Oysters

COLLEGE PARK, Md.—To provide oyster lovers with their heart's delight during R-less months, the Fish & Wildlife Service of the U. S. Department of the Interior is conducting a year of research here under the direction of Dr. S. R. Pottinger to perfect the packaging of frozen oysters.

While the actual freezing of oysters is not a new idea, the matter of containers has always been a snag. The present project, which was begun last March, aims at determining which of 20 different types of containers best preserve the freshness and qualities of frozen oysters for 12-month consumption.

Monthly experiments involve packing oysters in a variety of materials from specially treated cellophane and paper bags to waxed fiber board, tins, and glass jars.

Prior to periodic sampling by expert oyster tasters, the frozen mollusks are subjected to various laboratory tests to see how well they have kept during months of storage at -2°.

Oysters were first frozen commercially several years prior to the war, but production has never been comparable to that of fresh oysters during R-months. During the first seven months of this year, approximately a half-million pounds of them were frozen, while production of fresh oysters throughout the country ran about 60 million pounds. Labor shortages and Army demands, however, might account for this production difference somewhat.

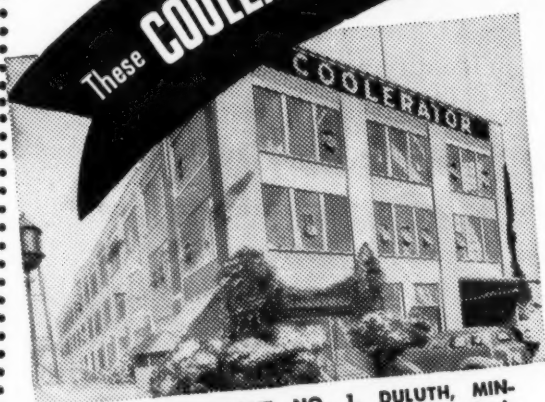
Lewis Radcliffe, director of the Oyster Institute of America, announced that his organization is looking forward to an eventual increased production of oysters in future years.

Calif. Frozen Food Group Changes Name

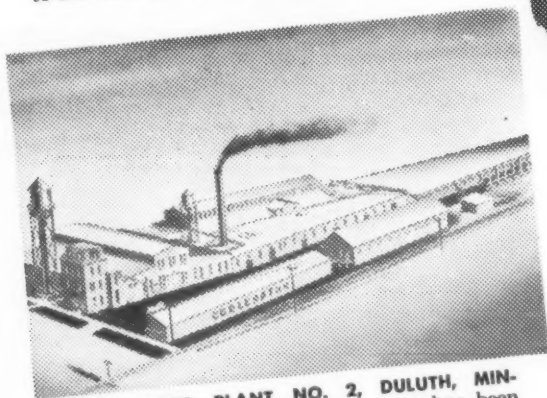
LOS ANGELES—The Frozen Food Council of Southern California is the new name of the former Frozen Food Distributors Council.

New officers of the organization are Arthur Freeman, president; Herbert Erikson, vice president; and Charles Reifsteck, secretary.

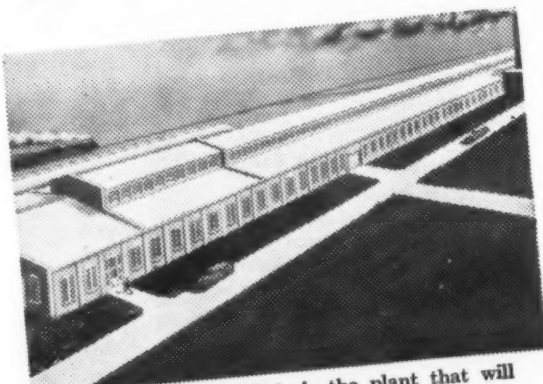
These COOLERATOR Equipment PLANTS are ready to Produce for YOU!



COOLERATOR PLANT NO. 1, DULUTH, MINNESOTA. This is the home office of America's largest specialist in home refrigeration, a company backed by years of experience and pledged to maintain its quality reputation.



COOLERATOR PLANT NO. 2, DULUTH, MINNESOTA. This supplementary plant has been busy on reconversion. It is ready to produce the New Coolerator Electric with all 17 things women want most in a refrigerator.



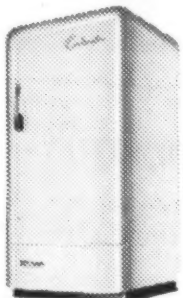
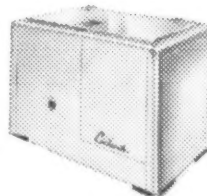
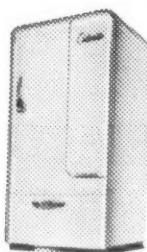
PRECISION PLANT. This is the plant that will bring you the refrigerating unit for Coolerator Electrics and Home Freezers... hundreds of thousands of hermetically sealed refrigerating units have been produced in this one plant!

Here they are—tooled and ready to start production at a moment's notice as soon as Uncle Sam gives the word. From these 3 modern plants the New Coolerator Electric... New Ice-Conditioned Refrigerator... and new Home and Farm Freezers will flow in a steady stream to distributors, to dealers, to American women everywhere! Remember, these are the plants that produced 890,000 refrigerators in the past ten years—they have the production facilities, the master technicians, and the backing to bring the highest type of refrigeration within the reach of all.

NEW COOLERATOR ELECTRIC. 7 1/2-cu. ft. and 9 1/2-cu. ft. models.

HOME AND FARM FREEZERS. Home Freezer—6 1/2-cu. ft. Farm Freezer—15-cu. ft.

NEW ICE-CONDITIONED COOLERATOR. 5-cu. ft.—75-lb. ice-capacity. 6 1/2 cu. ft.—100-lb. ice-capacity.



Coolerator
The Coolerator Company
Duluth 1, Minnesota

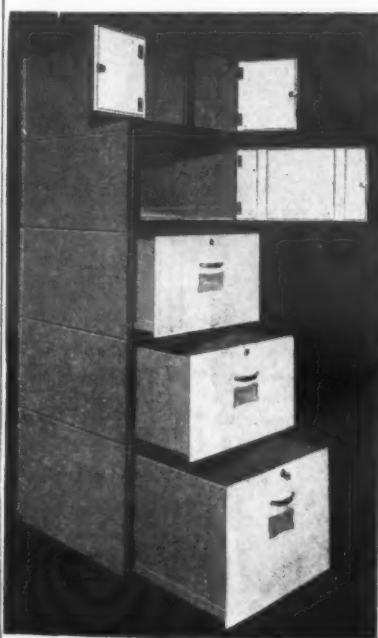
Since 1935

There Must Be
A Reason

Today over 4,000 of the 7,000 plants are MASTER Locker equipped.

No manufacturer gains such prominence unless his merchandise meets the exacting requirements of the critical buyer. Master has been outstanding because they have anticipated the needs of profitable Locker operation. You can't go wrong by ordering

MASTER FOOD CONSERVATORS



They have everything you want for profitable locker operation. You won't exaggerate when you say "Hats Off To Master," the pioneers of the Locker industry. You won't be sorry if you demand them.

Write, Phone or Wire

Remember the right unit is important—so order MASTER today. Better be safe than sorry and safeguard your interests.

Endorsed by and sold through distributors of refrigeration and insulation.

MASTER MANUFACTURING CORP.
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Member of Frozen Food Locker Manufacturers and Suppliers Association organized for your protection.

Over 800,000 Master Food Conservators in Use

Most California Locker Operators Plan Expansion Moves & More Merchandising

FRESNO, Calif.—Members of the Refrigerated Locker Operators of California Association met here recently to elect a new president and discuss problems incidental to reconversion from war to peace.

H. V. Lambert, locker plant owner from Le Grand, Calif., was elected president of the association, replacing Charley F. Holme, Jr., of Sebastopol. Mr. Holme has been president for the past four terms but retired in favor of his duties with the National Frozen Food Association, which he heads.

The association was organized in October of 1940 with eight member locker operators and a few refrigeration engineers on the charter list. Since then it has grown to a strength of 260 members, including owners of locker plants from San Diego to San Francisco.

Chief problems discussed were getting under way without the food rationing difficulties of the past, which restricted expansion, advertising, and improvement in most plants. Ninety per cent of the membership will add new lockers to their existing facilities, according to Mr. Lambert, including sharp freeze rooms for bulky foods and larger storage capacity.

"The most significant change ahead is that most of our members plan to go into the merchandising end heavily in the future," the association head

outlined, "with large stocks of frozen foods, meats, and produce for locker renters. Our membership at present includes 50 non-service plants which do not furnish meat cutting facilities or similar accommodations.

"All of these will shortly be equipped with sanitary meat markets for large bulk sales and will add other food processing departments as soon as materials are available. Ninety per cent of the more than 200 plants involved plan to begin merchandising frozen foods."

Typical plants will install refrigerated display cases for packaged and bulk frozen foods, which will be sold to locker renters in dozens of similarly large amounts. Hinging around the use of the locker, this type of merchandising will operate almost on a non-competitive basis, the associated owners state.

There will be some move toward standardized price for locker renting, as well. This is contemplated in view of the fact that San Francisco and Oakland plants rent lockers at rates 50% or more higher than other sections of the state.

A speaker at the meeting was J. T. Cox of the University of California, who described the progress of frozen food production and distribution, brought out service tips in building business, and promised an excellent future ahead.

Michigan Operator Sees Locker Plant As the 'Frozen Foods Headquarters'

GRAND RAPIDS, Mich.—Declaring that the locker plant operator is the "natural focal point for dissemination of information of frozen foods," Robert E. Klise, Grand Rapids locker operator and a director of the Michigan Frozen Food Locker Association, Inc., told the group's members at their recent meeting here that the locker plant and home freezers are not necessarily competitive.

"The well operated urban locker plant will be selling home freezers, and our customers will eventually realize that they need a home unit plus the services of a locker plant," said Mr. Klise.

"I'm personally sold on home freezers, but we must attempt to make the locker plant the frozen foods headquarters. We must keep the customers coming in for advice on food freezing and storing, instead of forgetting about them when they purchase a home unit."

Expressing fear that the public may be "oversold" on home freezers, Mr. Klise stressed the importance of making people understand that "you

can't prepare everything at home and you can't store it indefinitely."

The public ought to be told the advantages and disadvantages of home freezers, he said, adding that "I have some patrons who have thrown out their home units and returned to the locker plant. They had either been misinformed or had purchased a poor unit."

One of the things the public should be told, according to Mr. Klise, is that a considerable amount of refrigeration capacity is required to quick-freeze food. With a 16-cu. ft. box powered by a 1/2-hp. unit it will take 10 minutes to freeze just one pound of hamburger, he declared.

The average user of home freezers usually tries to freeze much greater quantities, he said, citing one instance of a man who attempted (unsuccessfully) to freeze several hundred pounds of beef at home.

When the home user tries to freeze too large an amount, it means that he is warming up the frozen food already stored and perhaps spoiling it, stated Mr. Klise.

New Lockers

ORANGE COVE, Calif.—A new cold storage food locker costing \$29,000 is being built here in the rear of the Dahler Grocery building under the supervision of the Valley Refrigeration Co. of Tulare, Calif. Plans call for 800 domestic cold storage lockers and three 16 ft. square cold storage rooms.

BELLINGHAM, Wash. — Roy T. Earley, Tacoma, Wash., was the low bidder at \$193,900 for construction of the cold storage and freezing plant to be erected here for the Bellingham Iron Works.

SPRING HOPE, N. C.—Stock has been subscribed by local citizens for construction of a frozen food locker plant here and application is being made for a certificate of incorporation. Construction is scheduled to begin shortly.

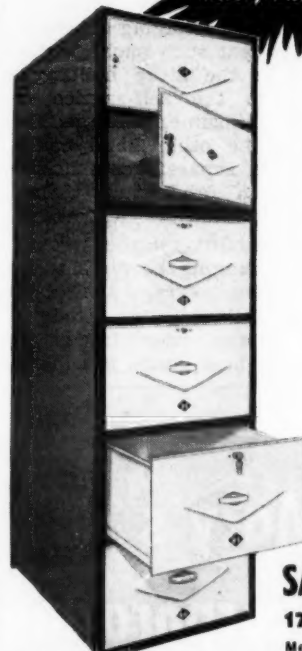
BERRYVILLE, Va. — Work will begin soon on a \$55,000 freezer locker plant here for Clarke County. The plant will be one story, 44 by 98 ft. and will house 420 lockers.

MILLET, Alberta—S. C. Moen has opened a new cold storage plant here. This new business undertaking features cutting, cooling, and freezing departments, as well as lockers, finished in white enamel.

Now! ANOTHER NEW MEMBER OF THE AMAZING Safe-Way

LOCKER FAMILY

The ARISTOCRAT (24" width) Factory Assembled



Don't fail to see the 24-inch ARISTOCRAT. It is Safe-Way's answer to those operators who still prefer the conventional style—rather than the modern wide-design

BROADVIEW locker. Like the BROADVIEW, it is a triumph of engineering skill... a product of unparalleled workmanship... unequalled in price, design, quality, construction! Made of extra-heavy gauge steel with superior construction features that mean lifetime durability. Factory assembled in 4-drawer and 2-door units—or 3-drawer and 3-door units.

SEE YOUR DEALER—PLACE YOUR ORDER NOW or write for name of dealer nearest you!

SAFE-WAY

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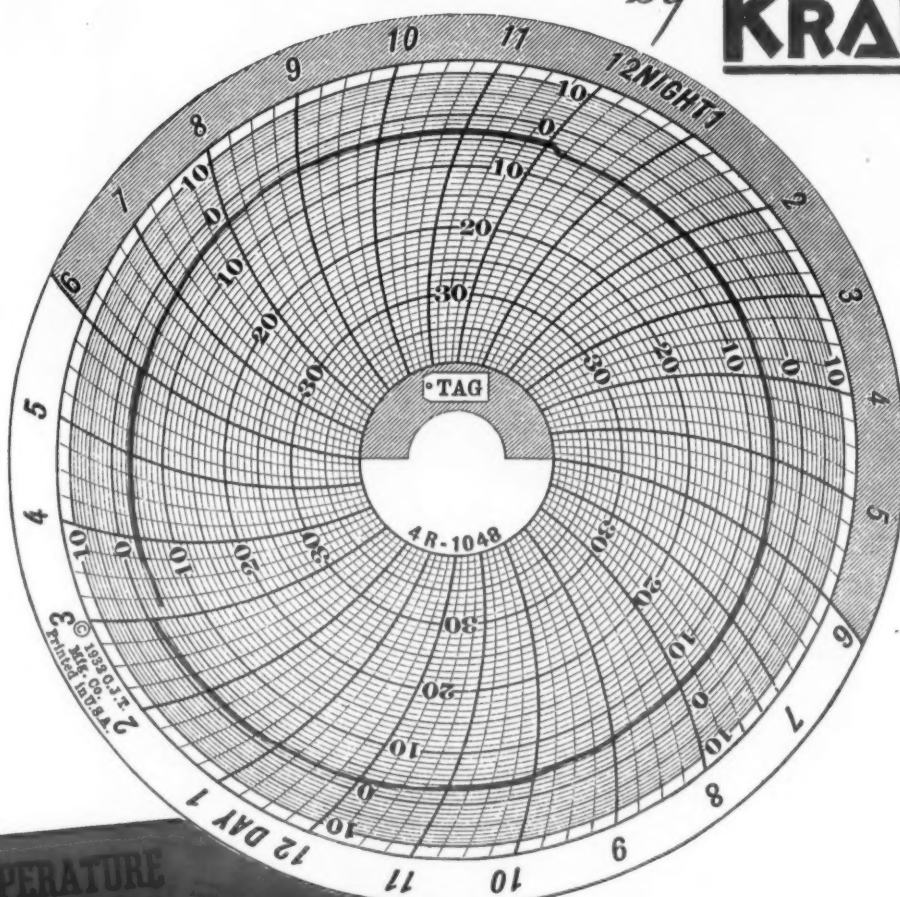
175 W. JACKSON BLVD., CHICAGO 4, ILL.

Member of the Frozen Food Locker & Suppliers Assn.

BUY VICTORY BONDS

THERMOBANK

by KRAMER



TEMPERATURE RECORD of a SELF-DEFROSTING LOCKER ROOM

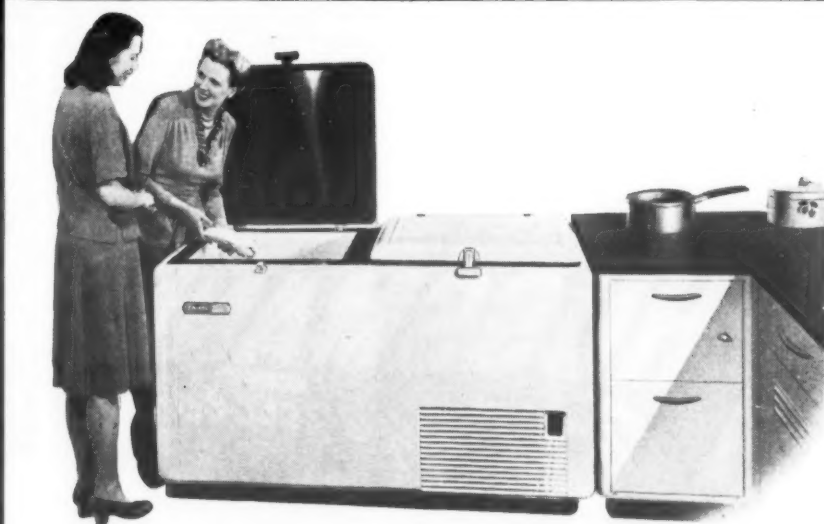
With the THERMOBANK, a zero degree system is just as automatic as a 40° system only more so.
NO MINE SPRAY • NO WATER SPRAY • NO ELECTRIC HEATERS

THIS is an actual 24-hour temperature record of a Thermobank installation in a locker storage room of 500-locker capacity. During this 24-hour cycle, seven defrost operations took place. The equipment consists of two Thermobank evaporators, each connected to a separate compressor with a separate Thermobank. The compressors defrost independently of each other at staggered time settings, thus obtaining a minimum of temperature fluctuation in the locker room during defrost.

The installation was made by the Refrigeration Corporation of America, 241 W. 64th Street, New York, N. Y.

SEND FOR BULLETIN TV-345 N

KRAMER TRENTON CO., Trenton, New Jersey



BUILD LASTING CUSTOMER GOODWILL WITH THE QUALITY-BUILT BEN-HUR "Farm and Home" Freezers

QUALITY is remembered long after PRICE is forgotten is a truth that applies particularly to freezers for the farm and home. Today, with a great and widespread public interest in home freezing units, it is highly important for distributors and dealers to choose a line that insures these ESSENTIAL FEATURES:

Write for full particulars TODAY.

BEN-HUR MFG. COMPANY

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FARM & HOME FREEZERS

- ★ Construction that is Sound and Durable, with long-lasting, properly built-in insulation.
- ★ Laboratory Tested, under all conceivable operating conditions.
- ★ Design that is Practical — efficiently planned for conveniently accessible storage.
- ★ Engineered and Perfected by Leading Refrigeration Experts — to assure continuously dependable operation.
- ★ Complete Size Range — Meeting All Family Needs — City or Country.

Packer Sees Packaged Frozen Meats Aiding In Competition for Public's Food Dollar

CHICAGO—"Whether we like it or not, packaged frozen meats are being sold today and more retailers are making plans to get first-hand knowledge of their merits," the American Meat Institute was told by Neil Anderson of Wilson & Co., Inc., Chicago meat packer, at its fortieth annual meeting held here recently.

MOST FOOD RETAILERS PLANNING SELF-SERVICE

"A recently reported survey made by National Association of Retail Grocers gives us some interesting figures. Among them is this—78% of the independent retailers of food surveyed expected to be self-service stores as soon as material and equipment are available. Without going into the details of the survey or its

extent, this figure is in itself an arresting one.

"If these retailers mean complete self-service, meats will, of course, be included. Self-servicing of meats requires pre-packaging in either fresh or frozen form. From the published reports of pre-packaging experiments, it appears that such packaging must be done in the store building and delivered to the self-service cases promptly. Consumer packaged frozen meats on the other hand could be processed in separate establishments and even in fabricating plants in other cities," said Mr. Anderson.

"The possibilities in the frozen food field have caught the popular fancy during recent years. Almost daily the press tells of new attempts to promote some new frozen food. These have been made possible both

by advances in the mechanics of freezing and storage as well as the development or improvement of many packaging films and materials. New and novel methods of merchandising have appeared, and tests of their value are being conducted in many places.

"The packing industry has been slow to enter this field. Not a few in the industry have felt that frozen peas and strawberries may well form a permanent part in our economy, but steaks, roasts, and chops must still be cut and sold by the retailer at time of sale. Though retailing is not a part of the packing industry, it is important that we keep a watchful eye on all changes in retail practices.

"We have long recognized that any retailing method or product to be successful must meet with the ap-

proval of the housewives who purchase the meat and plan the meals for you and me. No matter how elaborate the plan or product, her stamp of approval is final. She has changed the pattern of merchandising of bacon and lard, to mention only two meat items which are now sold almost entirely on a pre-packaged basis.

"Packaged fresh meats have already passed the experimental stage. In those places where they have been supplied, the housewife has welcomed this method of merchandising, and by her increased patronage has shown that she likes it.

"Whether this is an indication of the reception that frozen packaged meats will receive is yet to be determined. It is not the purpose of this paper to attempt to forecast the success or failure of this form of merchandising. That would require far more time than is allotted, as well as more knowledge and experience than this speaker has," said Mr. Anderson.

TWO-TEMPERATURE UNITS

"Domestic refrigerator manufacturers are building into their new models a substantial space for zero or near-zero storage for frozen foods. Many are also building separate low-temperature units for kitchen or basement—the so-called home locker. Scores of manufacturers who never built domestic refrigerators are also building these home storage cabinets in which to store and process foods. Commercial fixture firms are building cabinets and self-service display units for merchandising frozen foods. Frozen food stores are opening all over the country.

"While none of these require frozen packaged meats to be successful, their owners will demand to know why meats cannot take their place along with other staple frozen foods," he emphasized.

"Until comparatively recent times, there seemed to be little need for promoting the sale of meat. Meat is a natural food that everybody enjoys. The only limitation on its sale was the purchasing power of the housewife. Competition from other foods for a larger proportion of the housewife's food dollar became more prominent in the decade before the war and has gained substantially during rationing.

"People have not lost their appetite for meat, I am sure, but competition both within and without the food field for a larger share of consumer patronage has put meat increasingly on the defensive. In the food field, extensive and persistent advertising and point-of-sale promotions, modern packaging inviting mass displays and self-service retailing have made 'impulse buying' of other foods a

more prominent part of the average housewife's shopping.

"To effectively compete in this new retailing, pre-packaged meats have been given serious consideration by thoughtful retailers, for only by pre-packaging can meat be displayed and sold in self-service cases. Where this method of meat merchandising has been given thorough testing before rationing, it has shown that substantial and permanent gains have been made in volume of sales and equally significant economies in operating costs. There is also the intangible asset in customer satisfaction through the elimination of congestion and delays at the meat counter.

"It is not our intention to imply that pre-packaged meats or any method of retailing will either separately or combined give meat its place in the food budget which it should have, but it is worthy of more than passing note that these two have been effective in promoting meat sales when given a thorough trial. Though the work thus far has been on fresh pre-packaged meats, there is nothing in this method of merchandising which would preclude the use of frozen, stated Mr. Anderson.

SUCCESS WILL DEPEND ON QUALITY OF PRODUCT

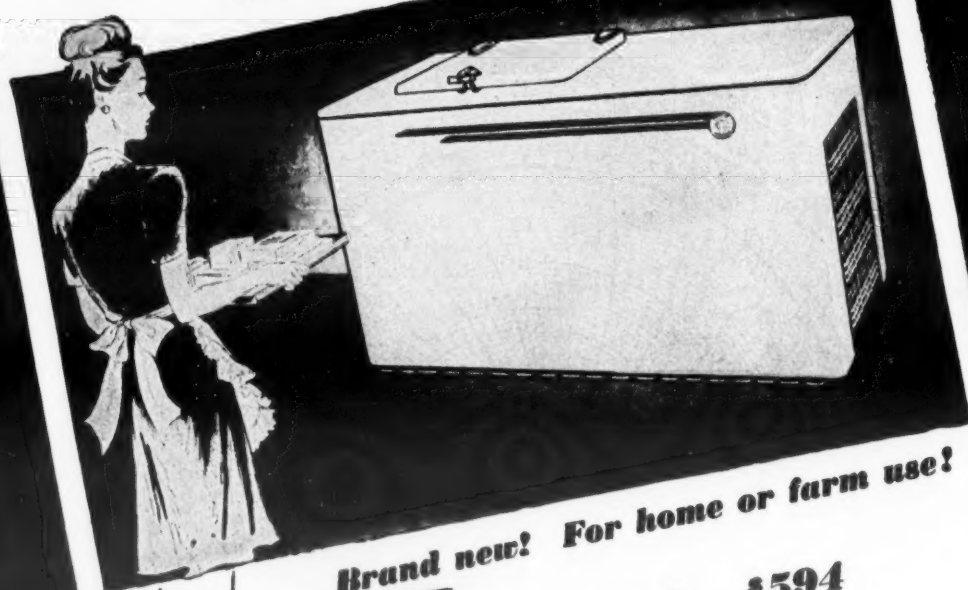
"Beyond the mechanics of packaging and retailing either fresh or frozen meats, however, is the all-important factor of quality. No processor, whether large or small, can expect to succeed regardless of his method of retailing or packaging without the maintenance of uniform quality at all times. No amount of expense in package design or material can compensate for inferior quality or lack of uniformity in the contents. The housewife knows what satisfies her requirements even if she does not always know what factors go to make up that quality. It is the ability of the processor to maintain that quality in his packaged output that measures his success in his business," he declared.

"It is apparent that the pre-packaging of fresh meats has met with consumer acceptance where it has been tried, that these successes have encouraged other retailers. Self-service merchandising demands pre-packaged meats and this method of retailing has both definite economies and promising opportunities for stimulating meat sales.

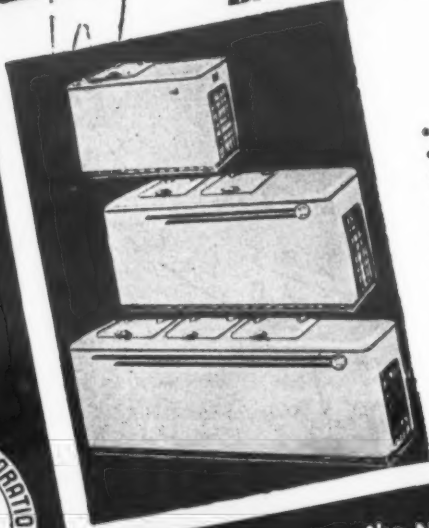
"For the present, packaged frozen meats have the spot-light and apparently offer the same opportunities that fresh offers, plus the added advantage of permitting their processing outside the retailing establishments. And finally, regardless of the form, quality output alone will stand the test," commented Mr. Anderson.

Macy's and Refrigeration Corporation of America MAKE HISTORY with Frigid Freeze Home and Farm Frozen Food Lockers

Macy's is first with Frigid-Freeze frozen food cabinets



Brand new! For home or farm use!
\$249 .. \$594



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- All the latest improvements made possible by intensive war production!
- No more expensive than a good-sized refrigerator to own (or operate)!

They're here, at last—those magic quick freeze units you've been waiting for! No more waste, no more spoilage—these gleaming white cabinets are sized, and priced, for your own kitchen or basement! They're powered with an efficient unit to provide a temperature of many degrees below zero. The sturdy lids are thickly insulated. And think of it—only 1/2 down on Macy's Cash-Time will put a Frigid-Freeze in your home! Pay balance monthly, plus service charge.

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This Macy ad appeared in the New York Times, Sunday, August 26, 1945.
(Actual size of ad was 300 lines x 5 columns).



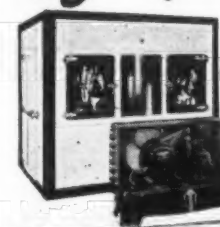
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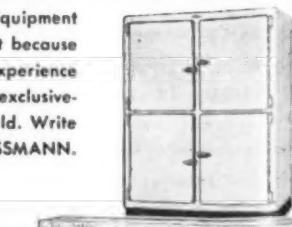
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Retail Cabinets for Frozen Meats Present New Problems for Equipment Manufacturer, Meek Tells American Meat Institute

CHICAGO—"To the best of my knowledge there isn't a single manufacturer who has gone out and developed any startlingly new equipment to retail frozen meats," declared George W. Meek, president of Frozen Foods Products, Inc., Syracuse, N. Y., in a talk before the fortieth annual meeting of the American Meat Institute held at the Stevens hotel here recently.

"True," he added, "there are at least six or eight new retail frozen food cabinets which are to be placed on the market by as many manufacturers but little direct attention has been given in the design of these cabinets to the sale of frozen meat—the emphasis being on the sale of frozen pre-packaged fruits, vegetables, fish, and cooked foods.

LITTLE PIONEERING

"Even in the case of equipment, which will be offered for use in merchandising fresh packaged meat, the manufacturers have done little pioneering—they have in most cases made minor adaptations of their fresh fruit and vegetable display cases.

"You may wonder why a frozen food display case has to be any different to properly handle frozen meats. Well, take just the one matter of lighting. I recently saw a new design of frozen food case in which the quality of the light which shone on the cellophane wrapped meat gave the most sickly color to the neatly packaged frozen pork chops you could imagine. Remove the package and hold under another type of light and the pork chops were as luscious as ever!" said Mr. Meek.

FUTURE PROSPECTS

"Packaged fresh meat—and in the years to come and to a lesser degree pre-packaged frozen meat—will be sold largely from self-service type of

cabinets. True, some of the retailers who jump right in during these coming months and start selling packaged fresh meat will have to use their present conventional single duty and double duty display cases with the clerk removing the meat from the rear of the cabinet and handing it over the counter top to the customer.

"But, as soon as the idea is completely proven and self-service cabinets are available, I feel sure that such cabinets will predominate.

"Incidentally, when I say 'self-service,' I am not referring to anything that smacks of a cigarette vending machine type of cabinet—either for packaged fresh or packaged frozen," explained Mr. Meek. "The several thousands of dollars which the speaker's little company has spent playing around with that one, convinces us that it is going to be a long time before anyone steps up to pull a lever expecting say, a neat little package of three frozen pork chops to drop out.

MERCHANDISING PROBLEMS

"Merchandising-wise, the idea is just too cold—and I don't mean to pun either! For a long time to come—habits being what they are—the housewife who goes to market will want to see the meat she buys (even though we all know there isn't one woman in 10 who can tell how good a piece of meat is by looking at it on the counter!)

"So much for retail cabinets. Now for a quick glance at a new wrinkle in frozen meat retailing—the aging rack.

"Actually, I shouldn't touch on this subject except that it has been proposed to use such a device in the merchandising of frozen meats. As most of you gentlemen undoubtedly know, it is proposed that one approach to the retailing of frozen meat is not to do any fabricating or packaging at Chicago but to have

the retailer install a very attractive insulated room in his meat department.

"This room will be divided into two parts—one held at about 55° to 60° F. and occupied by the men who will cut, weigh, package, and freeze the meat right on the spot, the other held at about 38° to 40° and equipped with rows of slatted wood or plastic racks on which meat is allowed to undergo its final aging for possibly seven to 10 days under carefully controlled temperature and humidity. Both rooms are exposed to the customer by means of thermo-pane glass panels.

WHAT ARE ADVANTAGES?

"It is claimed that the expenditure of this money by the retailer of frozen meats will add a lot of 'glamour' to the transaction—that it will provide a tangible means of proving to the customer that she is getting a 'plus value' when she buys meat in a store using such equipment," he said.

"Also, it is claimed that it provides for a more uniform scheduling of all the cutting and packaging activities throughout the week with a resulting increase in labor productivity. I believe we all realize that only after a year or two of postwar application will any of us be able to properly evaluate this approach.

"Certainly, it has the advantages of neatly by-passing the labor question and of requiring no expenditure for equipment additions to the already far-flung investments of the meat packer. Incidentally, several installations of this equipment are currently on the drafting boards, and a year from today we will be able to give at least a preliminary report.

"I believe that any one who has followed the speaker's remarks up to this time may have gotten the idea that he is not very bullish on the immediate sale of frozen meat in retail stores. Such an impression is correct.

WILL HAVE TO BE CHEAPER OR BETTER

"It was fairly well proven many years ago that meat couldn't be packaged, frozen, shipped to the retailer, unfrozen, and be sold over the next several days as fresh meat. By the

same token, unless frozen meat is either cheaper or is proven to have some marvelous qualities not present in fresh (and neither of these things has been demonstrated to date)—I believe there is little reason to think that the customer will buy packaged frozen meat in a retail store in preference to packaged fresh—unless, that customer has facilities at home for storing frozen meat," averred Mr. Meek.

DEPENDS ON HOME UNITS

"While it is not possible in the time allotted to me to go into the subject of equipment required for transporting frozen meats to the retailer, transporting frozen meats to the retailer, transporting frozen meats to the home, or for storing frozen meats in the home, I want to close with the observation that the past two years of market research seem to indicate that for several years to come the future of frozen meat is largely dependent on the rate at which homes are equipped with home freezers, zero degree holding cabinets, and with household refrigerators having at least 2 cu. ft. of zero degree space.

"Since it is likely that the first people to acquire such facilities in the home will be in the middle-to-upper income brackets, one other clue as to frozen meat merchandising may be deduced. Families of the type mentioned want, and are willing to pay, for service.

"Thus, if such families are serviced by those companies who decide to specialize in the home delivery of a complete line of frozen foods, this will tend to minimize still further the amount of frozen meat which may be sold initially over the counter of the regular retail store."

NIBCO WROT

AND CAST
VALVES AND FITTINGS

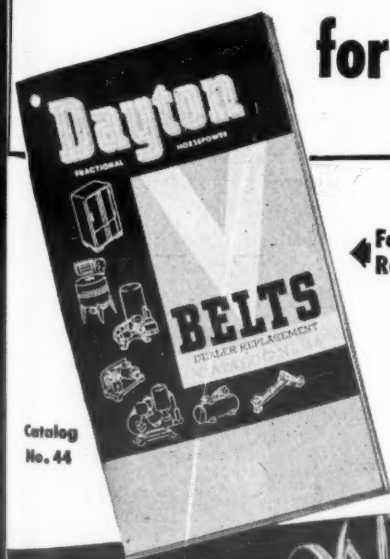
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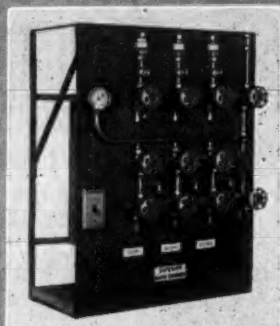
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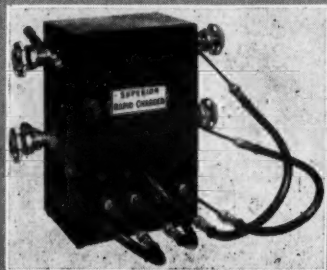
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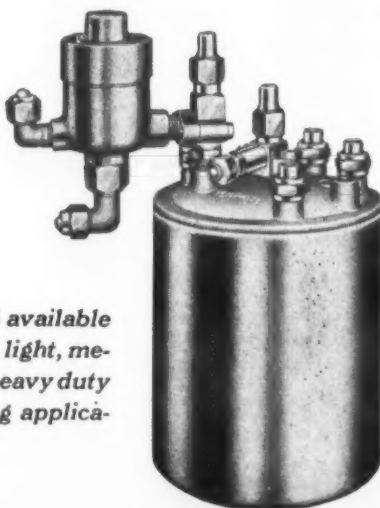
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Service Engineer's Chances In Sales Work Described

Repairmen Are Called 'Salesmen With a Conscience'

BLOOMINGTON, Ill. — Refrigeration service men make good salesmen and those who now want to shift to the selling branch of the industry will find a gigantic market holding brilliant promise.

This alluring picture was sketched by W. A. Matheson for 200 delegates and guests gathered at the Illinois Hotel here Oct. 20 for the annual banquet winding up the state convention of the Illinois Association of Refrigeration Service Engineers Society. Mr. Matheson is manager of the Williams Oil-O-Matic Division of Eureka Vacuum Cleaner Co.

Along with his predictions for the future, which he called "exciting and inspiring," Mr. Matheson said it was about time somebody told service men just how important they are. This he proceeded to do.

He tossed verbal bouquets at repairmen for accepting "the tremendous responsibility of keeping the old equipment running" during the war years when "fewer and fewer did more and more." "And for the magnificent job you did," the speaker stated, "an industry honors you."

HAVE BUILT UP GOODWILL

The service man need not worry about his selling qualifications, Mr. Matheson assured his listeners, because he is in fact already a salesman—"a salesman with a conscience!"

"During the war years, the priceless goodwill and the future of the refrigeration industry was in the hands of you service men—and you alone," he acknowledged. "There wasn't any new equipment to sell. So there weren't any salesmen out singing the praises of refrigeration. In your own way, you did one whale of a selling job."

This is evidenced, he said, because of present users' confidence in mechanical refrigeration, by the sales goals set up by the industry, and by the huge backlog built up through lack of new equipment for almost four years.

WHY REPAIRMEN QUALIFY

Defining a successful salesman as one who understands the needs of his prospect, is thoroughly acquainted with the means he has for supplying those needs, and is able to impress the prospect with his ability to supply the needs, Mr. Matheson asked: "Who knows the needs of refrigeration prospects better than the service man? Who knows the ability of his refrigeration equipment better than the service man?" This knowledge, he said, would prevent both underselling and overselling.

A bright future from either a sales or service viewpoint is apparent from the known market and demand for and consumer acceptance of refrigeration products, the speaker said. He presented these facts for consideration:

Market: Mechanical refrigeration performs more than 200 essential services, including application to industrial processes and the probability of permanent frozen blood banks in hospitals. One authority estimates that at least 77% of the food eaten by the average American family involves the use of refrigeration or air conditioning, or both.

Acceptance: Domestic refrigerators are now installed in 69.6% of the nation's wired homes.

Demand: Refrigerator manufacturers, whose prewar total average production rate was 316,000 units monthly, expect to reach an output of 460,000 by June of next year.

Mr. Matheson broke down the present market for various types of products, as follows:

A LOOK AT THE MARKET

Domestic refrigerators: In June, WPB estimated the public wanted to buy 5,851,000 mechanical refrigerators as soon as possible. As of Jan. 1, 1945, there were 19,792,000 units in American homes. So the industry could build and sell immediately nearly one-fourth as many refrigerators as were sold in about 10 prewar years.

Commercial refrigeration: More than \$70,000,000 in new parts will be required to repair or expand present equipment to handle additional loads until new equipment is available in volume. Over half the equipment used by the meat industry is 15 years old.

Water coolers: Nearly one third of the half million water coolers now in operation are more than 10 years old and in line for replacement. Prewar output was approximately 50,000 units a year, most of them self-contained rather than remotely controlled. Demand for both types should boost postwar production to about 100,000. Based on prewar values, this business will represent a total expenditure of well over \$10,000,000 annually.

Freezers: There is an immediate demand for 1,000,000 home and farm frozen food units. A large percentage of these will probably go into the homes of farmers, who pioneered the use of the units and who now have total reserves of more than \$12,000,000,000. Before the war, it is reported, there were only a handful of packers of frozen foods. Today, there are 800, and some forecasts say the number will reach 2,000 in the next few years.

Electrified farms: Expected to increase at least 50% over the 2,600,000 families now receiving central station electric service.

(Concluded on next page)

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DOMESTIC MECHANICAL REFRIGERATORS

Prominent manufacturers' sales agent in Brazil and Uruguay with its own offices located in all major centers, seeks exclusive representation of high quality household refrigerators, for which top notch distribution available through its long established clientele in the refrigeration field.

Address replies to:—

Box No. 1845, Air Conditioning & Refrigeration News

Wartime Developments Open New Markets for Cooling Applications

(Concluded from preceding page)

"What field offers such bright promise for the service man who wants to sell," Mr. Matheson inquired. But, he continued, whether the choice be either sales or service, "add up all this evidence and the answer is a brilliant future."

Credit for this great market was given largely to service men whose "ingenuity and know-how" kept aged units running. "You kept them running as parts became harder and harder to get, as individual service men handled an increasing number of calls," the speaker said.

"In New York City, for instance, a 1941 survey showed that a certain number of contractors had employed 253 men who made 376,000 calls. In the same period of 1944, these same firms had but 182 service men available (many of them newly trained) to handle 456,000 calls. In brief: 80,000 more calls, 71 fewer men."

"This meant that the average number of calls per day, per man, had jumped from five to nine—a high figure in New York City with its great distances and traffic jams. Every service man who went into the Armed Forces or a war plant, left at least 1,500 calls per year to be handled by the remaining men."

SPREAD OF WARTIME USES

In reviewing some of the contributions and results of refrigeration at war, Mr. Matheson said he was most impressed by the fact that "every

wartime refrigeration development holds even greater promise in the peaceful days ahead." Few industries are in such a position, he pointed out.

He cited how refrigeration enabled fighting men everywhere to be supplied with properly preserved foods. Half of the 10,000 pounds of food consumed each day in the average battleship is kept under constant refrigeration, he said.

Floating cold storage "warehouse" ships developed by the Army were mentioned as another example of wartime food preservation. The ships were built at a cost of \$1,200,000, he stated.

"Eight main holds stored the equivalent of 64 carloads of frozen meats at 12° F.," Mr. Matheson explained. "Two additional main deck compartments with a capacity of 1,000 tons preserved fresh vegetables, cheese, butter, and eggs. Eighty-four electric motors of 150 hp. maintained the condensing units."

The Navy, too, went in for big-scale refrigeration, Mr. Matheson said in describing a one-story plant in the Southwest Pacific capable of storing 5,500,000 pounds of foodstuffs at the proper temperature, despite 130° outside heat. He quoted a Navy report to the Refrigeration Equipment Manufacturers' Association listing the plant's capacity as 2,500,000 pounds of meat, 2,200,000 pounds of fruit and vegetables, and 800,000 pounds of dairy products. A big por-

tion of the Pacific fleet was supplied by this huge plant, the report stated.

The little units also played their parts, Mr. Matheson related. For example, refrigerated portable containers—many as small as 25 cu. ft.—were widely used to supply fresh meat and other foodstuffs to troops in widely scattered, often nearly inaccessible regions.

APPLICATIONS FOR INDUSTRY

"Wartime industrial production also found new uses for refrigeration," Mr. Matheson said. "In some cases, two to three hours of treatment at 120° below zero have doubled the life of cutting tools. Milling cutters subjected to a similar 'freezing' process, have stood up under 24 hours of service instead of seven; hacksaw blades have lasted up to 119% longer and drills have cut more than 250 holes instead of 50 before re-sharpening."

"Life of welding tips has been lengthened greatly by the use of 'cold' welding in which water chilled by mechanical refrigeration is supplied to intensely hot welding tips so that a worker can make as many as 800 welds with one tip instead of 30 to 40 before it is necessary to clean or change the tip."

Refrigeration was important in development of the atomic bomb, Mr. Matheson claimed, but he said details of its use have not yet been disclosed.

New San Diego Firm

SAN DIEGO, Calif.—Baars Refrigeration Service is the firm name under which Anthony R. Niedzweigki has published a certificate that he is conducting business at 3038 Adams Ave. here.

Announcement



Bowser, Inc. and Kold-Hold Manufacturing Company are pleased to announce that the sub-zero industrial equipment formerly manufactured by the Kold-Hold Manufacturing Company will in the future be manufactured and sold exclusively by Bowser, Inc.

Kold-Hold Manufacturing Company will devote its entire facilities to the manufacture of evaporator plates and cabinet liners.



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"EVERYTHING FOR REFRIGERATION"

BACK THE VICTORY LOAN

Furnace Brazing Can Save 12% of Cost on Torch Brazing, Phillippi Tells A.S.R.E.

HARTFORD, Conn.—Properly controlled furnace brazing can save 12% of the cost on torch brazing and will increase the life of the part, declared A. K. Phillippi of Westinghouse Electric Co. at a joint meeting of the A.S.R.E. Connecticut Valley Section and the American Welding Society held here.

If furnace brazing is properly done, it is impossible to break the joint even though the metal itself, will fail under maximum load, continued the speaker in his discussion of "Furnace Brazing and Induction Heating."

A table of various atmospheres, their mixtures, uses, and other operating characteristics was presented to each of the members and guests. In connection with this, the speaker suggested that controlled atmosphere brazing will use half the amount of brazing material normally used in torch brazing.

Some commercial items cannot be entirely furnace brazed, Mr. Phillippi pointed out. As an example he pointed out a cylinder with a plug end and several other parts, including a tube, successfully furnace brazed. Then two sets of 200 mesh sieve pieces were inserted, and it was desired to braze the opposite plug end. The heat of a furnace would have destroyed the material placed inside the cylinder.

Induction heating, however, by controlling the heat at the exact point only, was able to make a good brazed joint and yet not damage the material of lower melting points, the speaker continued.

A controlled atmosphere furnace must be gas tight, Mr. Phillippi warned. In many cases, packing glands must be used to eliminate entirely the possibility of oxygen entrance into the furnace. Usual types of furnaces are the belt type, the pusher type, and the bell type, he enumerated.

A very interesting example of a formerly expensive nut saved one company \$65 on each nut. This particular nut was 18 in. deep and 24 in. across the face. With the use of an atmosphere furnace, this company used three sections of 6 in. thick boiler plate, mounted them on top of each other with copper particles between, inserted these in a controlled furnace, and had one unit piece 18 in. thick, explained Mr. Phillippi. Savings on other items using furnace brazing amount to 50%.

To secure correct brazing in a controlled atmosphere, the following are essential, the speaker concluded:

1. The pieces or parts to make up the whole should be entirely self-aligning, that is, no fixtures can be used.
2. All parts should be thoroughly clean.
3. It is necessary to have the proper temperature at the proper time and the correct atmosphere.

Formica Co. Expanding Plant Facilities

CINCINNATI—With the termination of Formica Insulation Co.'s all-out war production program, plant facilities are being reconverted and expanded to turn out decorative materials for which there is a pent-up demand, the company has announced.

A large, specially designed heating unit for preparing laminated sheets for forming into Formica drainboards and a special press has been installed to facilitate production of the forming-type of material, reports J. Roger White, vice president in charge of sales and advertising.

Formica veneering department research findings have been passed on to other fabricators, thereby expediting uses of laminated plastics for decorative applications, Mr. White continued.

Increased uses of laminated Formica materials for dinette tops, kitchens and home equipment, as well as for many office, store, theater, and restaurant applications are envisioned, with plastics replacing porcelain, enamel, wood, and linoleum.

Other uses of Formica products may include baseboard fittings on display fixtures and counters; door panels and scuff plates in automobiles; seat backs and bulkhead panels in airplanes; and soda fixture and bar fixture decorations.

Prewar uses for refrigerator door liners and breaker strips will be greatly expanded, Mr. White concluded.

Bastian-Blessing Workers Win Safety Award

CHICAGO—Men and women at the Bastian-Blessing Co. were recently awarded the safety award by the Liberty Mutual Insurance Co. for the success in a campaign to prevent accidents.

During a period of 32 months, this concern has steadily reduced lost time accident frequency until on Aug. 1, 1945, it stood 56% better than average for the industry.

ASSISTANT SERVICE MANAGER AND FIELD ENGINEERS

Wanted by household refrigerator and radio manufacturer

Thoroughly familiar with manufacturer's service operations. Assistant Service Manager must be capable of preparing service manuals, handling correspondence, setting up parts department, etc. Field engineers must be experienced in setting up distributors' service.

Permanent. Radio knowledge desirable but not necessary. Write fully, giving experience, education, age, marital status, and past earnings.

Box No. 1853, Air Conditioning & Refrigeration News

Navy to 'Dehydrate' Ships Assigned To Reserve Fleet

PHILADELPHIA—If the U. S. Navy's peace-time reserve fleet once again should be called into battle, it will be ready for emergency action in a matter of days, instead of the months previously required, thanks mainly to a dehumidification system just put into operation.

So says the Navy's Bureau of Ships.

Climax of a 20-year search for such a system to help keep America's idle sea power prepared for almost immediate use came recently as the 10,000-ton cruiser *USS Brooklyn* became "pilot ship" of the Navy's reserve fleet program. First complete air-dehydration set-up to protect ships scientifically against deterioration is being used on the *Brooklyn*, now serving as a model for the Navy's preservation program that will safe-guard hundreds of battle-wagons.

A vital part of the dehumidification system is a new automatic controller-recorder developed by the Friez Instrument division of Bendix Aviation Corp. in joint research with Navy air conditioning engineers. This device records humidity readings, station numbers, dry bulk temperatures, and times of readings from eight locations and transmits them in numerals on a tape to a central station.

The central recorder's "mathematical brain" is said automatically to compute average relative humidity throughout the ship. When relative humidity rises above 30%, the maximum safe mark, the recorder then becomes a controller which automatically regulates operation of moisture-removing equipment, according to the designers.

Research to find efficient, economical methods for checking deterioration of inactive ships caused by humidity was started in the early 1920's by the Navy's Bureau of Ships. Up to that time, major preventative used was grease. But grease made the task of returning a vessel to active status a long and costly one.

After continuous study and tests the Navy developed several systems for drying air in enclosed spaces aboard ship and over a year ago Friez experts tackled the problem of developing a method of taking continuous remote recordings of relative humidity. Lengthy experiments were then carried to what was termed a successful conclusion aboard the experimental ship, *AVC-1*, in the Navy Yard here.

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"NO-FROST" METHOD WITH SPRAY COOLERS

... gives always full capacity because there is no interruption for defrosting at sub-zero temperatures; protects quality in foods.

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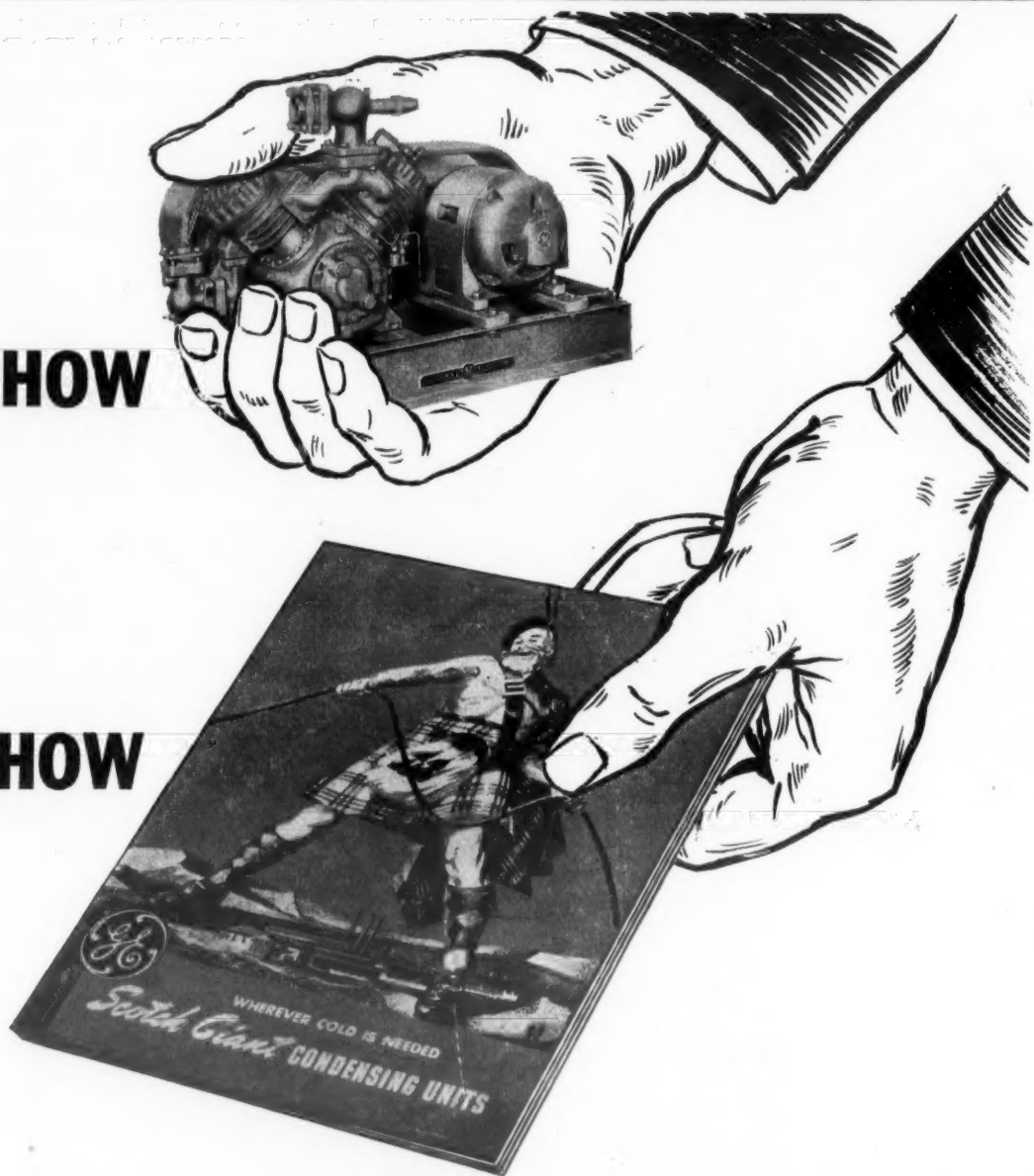
Refrigeration Appliances, Inc.
923 W. Lake St., Chicago 7, Ill.



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SHOW-HOW



To back you up two ways for more business!

Here's how to get your share of the business that's coming... with G-E equipment, G-E experience.

The equipment? G. E. designs and builds the major items you need for just about any refrigerating and summer air conditioning application. A complete line that offers your customer long, dependable, economical service... at competitive prices. When you specify G. E. you have the reputation and prestige of a big company behind you, to inspire customer confidence... make selling simple.

The experience? From long years of research and development, to provide fine refrigerating and air conditioning, comes the knowledge needed to do a better job. To meet the heavy competition that's coming, call on G. E. for the know-how and show-how that will mean more business for you, more friends for us both.

See your G-E Distributor, or write to General Electric Company, Air Conditioning Department, Section 57011, Bloomfield, New Jersey.

BUY... and hold... VICTORY BONDS

GENERAL ELECTRIC

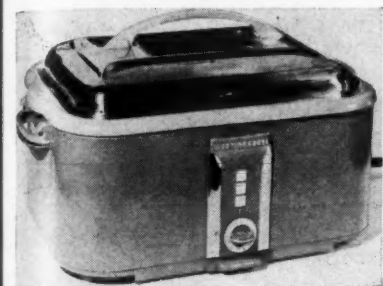
AIR CONDITIONING . . . COMMERCIAL AND INDUSTRIAL REFRIGERATION

What's New

Roasters Resumed By Westinghouse

MANSFIELD, Ohio—Again available after approximately three year's absence from dealers' shelves, the deluxe Model RD-414 roaster-oven is announced by the Westinghouse Electric Corp.

Designed to perform all types of cooking operations for domestic purposes, the roaster is 23½ in. long, 15½ in. wide, 12½ in. high, and has a capacity of 18 quarts. Outer surface is white enamel, baked on.



Inner surface, or cooking well, is gray porcelain enamel. The lid, made of 18-ga. (040) polished aluminum, has a "look-in" glass panel, removable for cleaning. A Time-Temp enameled steel shelf which slides from the base of the roaster lists all cooking times and temperatures.

The roaster is equipped with heat-proof glass dishes, including a 2½-quart uncovered meat dish, and two 2-quart covered vegetable dishes. Broiler-grid, electric timer, and roaster cabinet, which will not be available for a few weeks, are optional.

Bakery Water Coolers Announced by Filtrine

BROOKLYN—Quick conversion of facilities of Filtrine Mfg. Co.'s plant here has permitted introduction of packaged low-temperature water coolers for bakeries among other new types of water conditioning equipment for the refrigeration trade, the firm has announced.

Literature and capacity tables pertaining to the coolers are now being distributed. The coolers are available for shipment, the company said.

Optional equipment offered with the line of coolers, which have a low temperature of 34°, includes motorized water control valves and Duplex Filtrine water filters. The valves allow water flow between dough-mixer and cooler to be controlled by a button conveniently located near the dough-mixer operator, it is claimed. The filters are said to act as a check against foreign matter, including taste and odor.

The factory-assembled unit is described as also comprising insulated piping, a centrifugal pump, space for a condensing unit, and storage to meet dough-mixer requirements.

To assist refrigeration distributing organizations, Filtrine said provision has been made at the plant here to install condensing units furnished, so the complete assembly can be shipped ready for use.

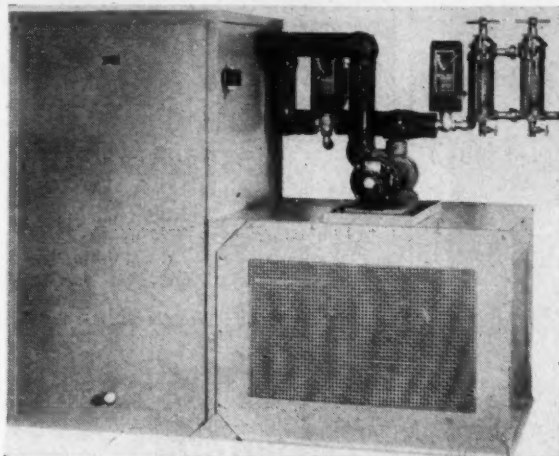
'Elastic Sleeve' Seal Requires No Springs

NEW HAVEN, Conn.—Introduction of a new "elastic sleeve" seal for centrifugal, rotary, reciprocating, and other types of pumps that require seals on rotating shafts has been announced by Temperature Control Devices here.

According to company claims, the "elastic sleeve" works equally well on bent, pitted, or slotted shafts, and eliminates all springs, shims, and shaft glands due to the development of a new oil-resistant elastic material used as the body of the seal.

Bearing of the new type seal is located at the source of oil supply, which assures longer life due to proper lubrication, the company says. Its simplified design requires few assembly parts with nothing fragile to break during assembly operations, which should permit faster installation, claims the company.

The new seal is being manufactured for new compressors as well as replacements.



Lau Introduces New Series 'A' Blowers

DAYTON, Ohio—Production of the new Lau "A" series blower assembly, is announced by the Lau Blower Co. here.

Offered in a range of sizes, the new Lau "A" Series Blower is considerably smaller than former models of comparable capacity. New features incorporated in the assembly include a three-point suspension method bearing bracket, the brackets being positively attached to the shroud to form an integral part of the housing.

The bracket in its fixed position is used for various angles of discharge. This improved three-point bearing suspension maintains positive alignment of the blower wheel to the venturi, the company claims.

A new method of mounting the motor is provided in a single attach-

Specifically designed for the use of bakeries, this new Filtrine assembly cools and filters water employed in the mixing of dough.

able piece which is easily convertible from rear to top position simply by using two sheet metal screws. The blower also contains a new center suspension type wheel for low and high speed.

Other new developments include a specially designed housing base; redesigned scroll with off-set in scroll sides for greater strength, and discharge outlet design which is constructed so that the cut-off cannot set crooked on the outlet.

Sylvania Designs Lamps For Refrigerator Use

SALEM, Mass.—Intended for application in refrigerators, vending machines, instruments, indicators, and other items, a new line of small incandescent lamps rated from six to 10 watts has been introduced by Sylvania Electric Products, Inc. here.

EASY TO USE!

Another reason why so many servicemen all over the country do their buying through the

NEW 1945

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of
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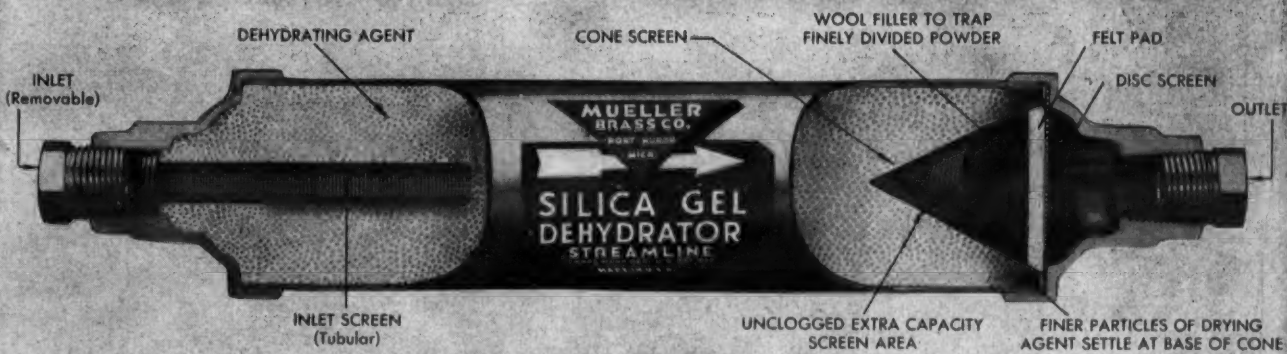
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Designers and Manufacturers of
Thermostatic Expansion Valves;
Pressure Regulating Valves;
Solenoid Valves; Float Valves



Here is the New MUELLER BRASS CO. REFILLABLE DEHYDRATOR



Readily Removable Inlet For Easy Refilling!

When recharging our new Dehydrator, simply remove the inlet plug—back out the slotted inlet screen tube—shake out the exhausted agent, then replace with new.

In addition to this convenient feature (see illustration above) Mueller Brass Co. Filters and Driers are provided with the CONE SCREEN OUTLET, a specially designed filtering element that adds immeasurably to the life and efficiency of Driers and Filters.

Almost all crystalline dehydrating agents are subject to a certain amount of abrasion while a dehydrator is in service. Small portions of the dehydrating agent break down into very fine powder and crystals. Unless a well-designed filtering element is incorporated in a dehydrator, these fine crystals and powder have a tendency to clog the outlet filter, resulting in restriction to the flow of refrigerant.

With the M.B.C.O. CONE SCREEN OUTLET, such finer crystals and powder are forced to the base of the cone, leaving the center and tip of the screen open to the free flow of refrigerant.

In addition, the cone screen is filled with pure wool which traps such particles that are sufficiently fine to pass through the screen mesh.

Particular attention has been paid to screen areas in Mueller Brass Co. Filters and Dehydrators, so that each size permits efficient passage to the maximum refrigerant volume that is used in a particular size refrigerant line.

MUELLER BRASS CO. PORT HURON, MICH.

Best tool
in your
kit....

Note large, legible scale and "Recalibrator" for keeping thermometer accurate. Also note illustration with back open showing method of coiling up capillary tubing.

The MARSH "Serviceman"

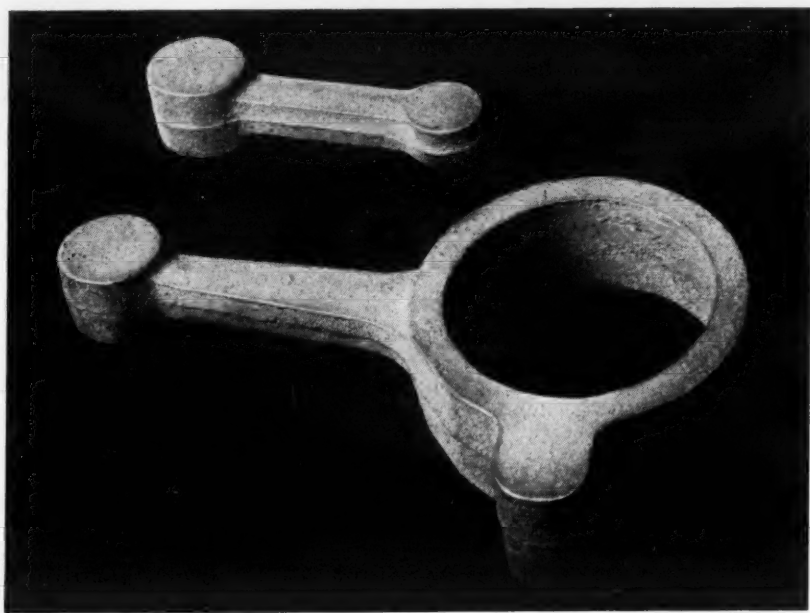
The "Serviceman" does what a pocket thermometer can't do. The remote reading feature permits tests under actual working conditions—with the refrigerator door closed and the indicator outside showing just what is going on at the point of measurement.

A generous length of capillary tubing is provided which coils handily into the back of the case, as illustrated, when the instrument is not in use. The Serviceman is a sturdy thermometer throughout, built to Marsh standards of precision and accuracy. The Marsh "Recalibrator" provides a convenient and certain means of keeping it accurate.

Here is the all-purpose thermometer for all domestic or commercial servicing. Volume production makes it possible to sell the Serviceman at the remarkably low dealer's net price of \$6.25 F.O.B. Chicago.

JAS. P. MARSH CORPORATION, 2067 Southport Avenue, Chicago 14, Illinois
Export Department: 155 East 44th Street, New York 17, N. Y.

MARSH Refrigeration Instruments



SABECO BRONZE CONNECTING RODS AND LINKS HELP BANISH REFRIGERATION MAINTENANCE PROBLEMS

When refrigerators begin to come off production lines once more, an increasing number of them will be equipped with connecting rods and links made of "SABECO" Bronze. The use of this unusual metal as seals, bearings, and other vitally important mechanical parts is rapidly spreading as more and more manufacturers learn by test that "SABECO" Bronze will not corrode, seize, burn, or pound out. Even when lubrication fails, "SABECO" Bronze parts continue to operate smoothly until corrective steps can be taken. Made from copper, tin, and lead only, with a maximum of 2/10 of 1% impurities, "SABECO" Bronze contains no hard spots to disintegrate into an abrasive, destructive compound. For complete particulars on how "SABECO" Bronze will eliminate or greatly reduce maintenance and replacement costs in your products or equipment, write to Saginaw Bearing Company, 861 S. Water St., Saginaw, Michigan. Cable address, "SABECO".

sabeco bronze

Refrigeration Problems And Their Solution

By P. B. Reed

For Service and Installation Engineers



Manager, Refrigeration
and Air Conditioning
Division, Perfex Corp.

Measurement of Temperature

The refrigeration service man must have imagination; he must be able to see, with his "mind's eye," what is going on inside the system, and he must be able to tell from the pressures shown on the gauges and from the "feel" (approximate temperature) of various parts of the system, what the conditions are inside the system as indicated by the pressures and temperatures.

He must know *why* these things are happening; for example, *why* a warm suction line with abnormally high suction and discharge pressure means that the compressor is pumping efficiently but is overloaded, while a warm suction line with abnormally high suction pressure but abnormally low discharge pressure means an inefficient compressor (leaking suction valves probably) or that a warm suction line with abnormally low suction and discharge pressures means that the expansion valve is not putting enough refrigerant into the

evaporator, (stopped valve, strainer, weak power element, etc.)

All of these things he must visualize, and must be able to evaluate according to the observable conditions.

THE MEMORY OR "CUT-AND-TRY" METHOD

Some men never quite understand the real significance of the various combinations of high and low pressures and temperatures in different parts of the system. Through experience they have learned to "memorize" certain combinations of conditions and what was successful in correcting the faulty conditions.

If such men are confronted with a new set of conditions, one that they haven't experienced before, or which is unrecognizable, they will flounder, and be forced to try first this and then that, without knowing just exactly what is going on inside the system, nor are they able to logically think out the solution.

THE "KNOWLEDGE" METHOD

The man who knows the "whys" doesn't depend on memory to tell him that a certain combination of pressures and temperatures is like one in his past experience that was corrected by turning this valve or that valve, adding refrigerant, changing the expansion valve, etc. He recognizes in the combination of conditions an underlying cause and he immediately corrects that one fault. He wastes no time in trying this or that. He isn't guessing; he knows.

Experience is a great teacher and cannot be underestimated, but some men do not learn from experience. Experience, however valuable, cannot take the place of a good working knowledge of the "whys," the underlying principles—sometimes called "theory."

DO NOT UNDERVALUE "THEORY"

Some "old-timers" are apt to underestimate the value of "theory." To do so is a big mistake. The man with a good foundation of "theory" can become an excellent service man in a very short time, while another man who may have an advantage over others by being a "natural born mechanic," may make some absurd mistakes, simply because he does not know the "whys." His lack of knowledge of the despised "theory" allowed him to be led astray by an unrecognized or an unexperienced condition.

APPLYING THE BASIC PRINCIPLES

There is no man who can but learn and add to his store of knowledge and experience. The world's greatest scientists are constantly studying and searching for new knowledge. The refrigeration service man does not need to be a scientist, but he does need to know some of the underlying principles of science.

These underlying principles are not complicated; they can be stated very simply and easily understood. Understanding of these plain facts and applying them in a man's daily work makes that work easier, saves a lot of time and work, saves doing

jobs over (call-backs), adds to the man's prestige, enables him to do more jobs in the same time—all thereby adding to his ability to make more money. An occasional review of those basic principles will be of value to all of us.

REFRIGERATION PROCESSES PHYSICAL NOT CHEMICAL

In refrigeration we are mostly concerned with physical changes and conditions, not chemical. Refrigeration by the means usually employed is a physical action, not chemical. So we are less concerned with what a refrigerant is made of, that is, its chemical composition, than we are in what happens to the material when the temperature or pressure is changed.

TEMPERATURE AND HEAT

For a moment let us review "temperature" and its cousin "heat." They are not twins, for they do not always go together; we can have a heat change without having a temperature change.

Every substance with which we come into contact has some heat in it. If it had absolutely no heat in it, its temperature would be at "absolute zero," which is about 470° colder than ordinary zero Fahrenheit. This temperature has never been attained, although, in the laboratory temperatures very close to it have been artificially produced. No one knows just what would happen to a substance that cold; perhaps it would cease to be.

If zero on a Fahrenheit thermometer is not really zero, that is, the point at which there is no heat in the substance, then what is it?

THE FAHRENHEIT THERMOMETER

Over two centuries ago there was a scientist named Fahrenheit who designed a thermometer that now bears his name. He mixed salt and cracked ice in proportions that he thought would give him the lowest temperature possible, and he called that point on the scale zero. Actually he could have obtained a much lower temperature by using more salt with the ice but he did not know that.

The point on the glass stem to which the mercury rose when the thermometer was put into boiling water was marked and called 212°; the point at which ice melted or water froze was 32°. The same graduations were extended below the zero mark and were designated as degrees below zero.

THE CENTIGRADE THERMOMETER

Another thermometer that is made in the same manner as the Fahrenheit thermometer, is known as the Centigrade, having for its zero mark the point at which water freezes (or ice melts) and the point at which water boils is 100°. Also, the scale is extended below zero in the same manner as with the Fahrenheit thermometer. The Fahrenheit thermometer is used in English speaking countries and in Germany, while the

(Concluded on next page)



Model TS-1 TENNEY Thermostatic Expansion Valve, for Standard Commercial use, such as Air Conditioning, Display Cases, Refrigerators, etc. Sectional view, showing new construction and design features.

New TENNEY Thermostatic Expansion VALVE

offers these features

- Has no Feeler Bulb
- Not affected by box temperature, entering warm air, or warm suction lines
- Responds instantly to changes in suction vapor conditions
- Maintains close super heat control
- External equalizer unnecessary
—compensation for pressure drop in evaporator designed into valve
- No sticking or binding
—no stem packing required
- Exact sizing of valve to job unnecessary
—no appreciable time lag in control
- No over-feeding or under-feeding ("valve swing")
- No special installation required
—to prevent loss of control by condensing of bulb control fluid in valve body
- Closes completely above definite evaporative pressure
- Eliminates all special "charging" and "cross-charging"
—for operation in specific temperature range

These and other features of this New TENNEY Thermostatic Expansion Valve stamp it as the first forward improvement in expansion valve design in 20 years. New Valve has been so engineered as to overcome previously encountered expansion valve disadvantages.

Particularly adaptable to modern evaporators with forced air, small tubes, short passes and distributor header combinations. Also ideal for small evaporators or modern close coupled coil and machine combinations.

Distributors and representatives now being established in principal cities. A few desirable territories still open. Send for special bulletin, prices and discounts.

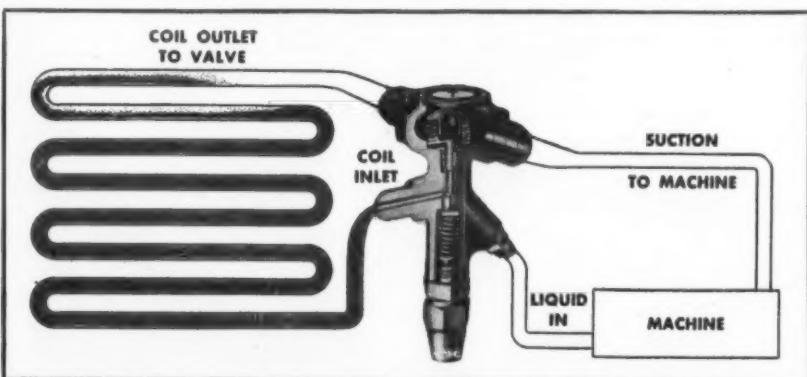
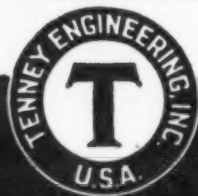


Diagram showing how New TENNEY Thermostatic Expansion Valve is connected in line with the evaporator.



TENNEY ENGINEERING, INC.

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Manufacturers of Automatic Temperature, Humidity and Pressure Control Equipment.



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Blowtorches,
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Soldering Irons,
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Spot THAT LEAK WITH THE LENK! HALIDE LEAK DETECTOR.

The Lenk Halide Leak Detector is positive, quick, clean. Easy to use . . . easy to carry.

Flame control, shut-off valve, self-cleaning orifice, non-clogging burner are other Lenk features you'll like.

THE Lenk MANUFACTURING CO.
NEWTON LOWER FALLS 62, MASS.
Manufacturers of Soldering Equipment Since 1919
ADDRESS: POST OFFICE BOX 8-A

Catalog and other information sent on request.

Thermometers Compared

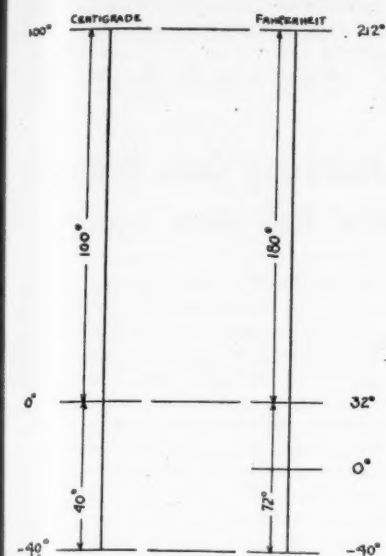


Fig. 1—Comparative scales of the Fahrenheit and Centigrade thermometers are shown above.

Measurement--

(Concluded from preceding page)

Centigrade thermometer is used in most other countries and in scientific laboratories in all countries.

FAHRENHEIT-CENTIGRADE CONVERSION

It is not difficult to convert from the Fahrenheit to the Centigrade scales or vice versa. A study of Fig. 1 shows their comparative scales. It will be seen that at -40° the scales are together. Zero F. is the same as -17.8° C. Zero C. is the same as 32° F. A temperature of 100° C. equals 212° F., so the space between freezing and boiling of water is 100° C. ($100-0$) and 180° F. ($212-32$). Therefore, a Fahrenheit degree is $\frac{5}{9}$ or $\frac{1}{1.8}$ of a Centigrade degree; conversely a Centigrade degree is $\frac{9}{5}$ (or $\frac{1.8}{1}$) of a Fahrenheit degree.

To convert C. degrees to F. degrees:

1. If the C. degrees are 0° to -40° . Multiply them by 1.8. If the answer is between 0 and 32, subtract it from

32. The answer is F. degrees above zero.

2. If the C. degrees are below -40° . Multiply them by 1.8 and add 40. The answer is degrees F. below zero F.

To convert F. degrees to C. degrees:

1. If the F. degrees are 0° to -40° F. Multiply them by $\frac{5}{9}$ and subtract this amount from 40. The answer is in degrees C. below zero C.

2. If the F. degrees are below -40° . Multiply them by $\frac{5}{9}$ and add 40. The answer is in degrees C. below zero C.

3. If the F. degrees are between 0° and 32° F. Subtract them from 32 and then multiply by $\frac{5}{9}$. The answer is in degrees below zero C.

4. If the F. degrees are above 32° . Subtract 32 from them and then multiply by $\frac{5}{9}$. The answer is degrees C. above zero C.

CONSTRUCTION OF A MERCURY THERMOMETER

An ordinary mercury or alcohol thermometer is based on a very common principle—that most liquids (and solids too, for that matter), get larger as they get warmer, and get smaller as they cool. The thermometer is a glass tube with mercury in it.

As the mercury is warmed it gets larger, requires more space and so creeps up the hollow tube. There is a vacuum above the mercury in the tube, so that it does not have to compress air. Its accuracy depends on the uniformity of the bore of the tube. If this bore were greater in one place than in another the thermometer would show in that place a slower rise in temperature than would actually be true.

LIQUID USED MUST EXPAND UNIFORMLY

The liquid used must expand uniformly; for example, it must expand the same from 0° to 10° as from 90° to 100° . Mercury and alcohol do this. Also, the liquid must not freeze. This eliminates water for most thermometers. Moreover, water does not expand uniformly; as a matter of fact, it reverses itself between 35° and 40° F. and starts to shrink instead of expand. The pressures created by the liquid in the top of the thermometer must be low for liquids

used in thermometers measuring the higher temperatures. For this and other reasons, other methods of measuring high temperatures are used.

One of these takes advantage of the expansion and contraction of solids, such as metals, and the unequal expansion rate for different metals. If two different metal strips are welded or riveted together and heated, the "bimetal," as it is called, warps, because one metal expands faster than the other and thus pushes the more slowly expanding metal into a curved position.

If the two metals are carefully chosen for a wide difference in rate of expansion and for uniformity of expansion rate, and if one end is held immovable, a pointer may be geared or otherwise attached to the free end.

We then have a thermometer, or if the free end is attached to a switch, we have a thermostat.

OTHER TYPES OF TEMPERATURE MEASURING DEVICES

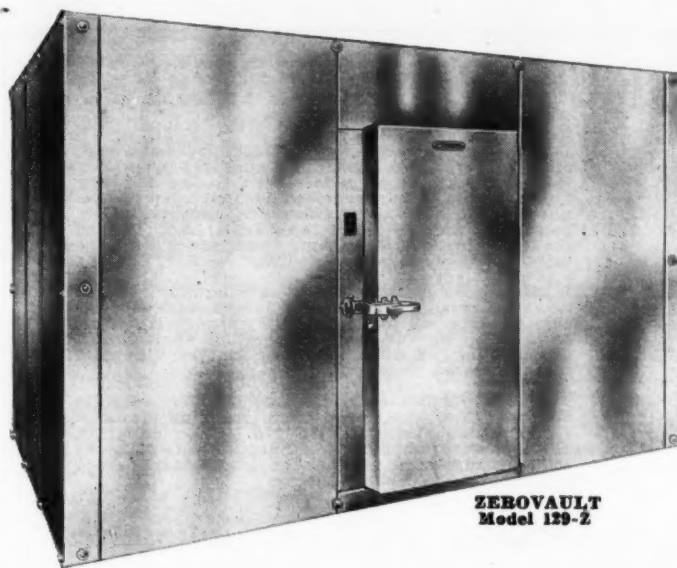
There are other methods of measuring changes in temperature. One is by expansion of a gas, about which more later. A very useful laboratory method is by means of the "thermocouple," which consists of two small pieces of metal, iron, and constantan, for example, soldered together. It is characteristic of these two metals that as they are warmed they produce a very small amount of electricity, which is measured by a delicate instrument such as a galvanometer which may be calibrated

directly in degrees.

Another method is based on the change in electrical resistance of a coil of wire as its temperature changes and this is measured electrically and calibrated in degrees.

For very high temperatures in ovens, etc., small pieces of several materials whose melting or fusing points are known, are placed in the furnace, and the ones that melt or fuse indicate the temperature in the furnace.

All methods of temperature measurement are best adaptable to some certain purposes and most easily usable under certain conditions. Whatever the method, it must be borne in mind that a thermometer does not measure the amount of heat, only its intensity, about which more later.



WILSON ZEROVAULT STORAGE FOR FROZEN FOODS

- ZEROVAULT has a significant place in our post-war stepped-up production schedule of low-temperature equipment.
- Sectional in construction, ZEROVAULT is easily erected in otherwise inaccessible places . . . is easily enlarged to care for expansion of frozen food distribution facilities.

WILSON REFRIGERATION, INC.
DIVISION WILSON CABINET CO.
SMYRNA, DELAWARE

...no job for an amateur

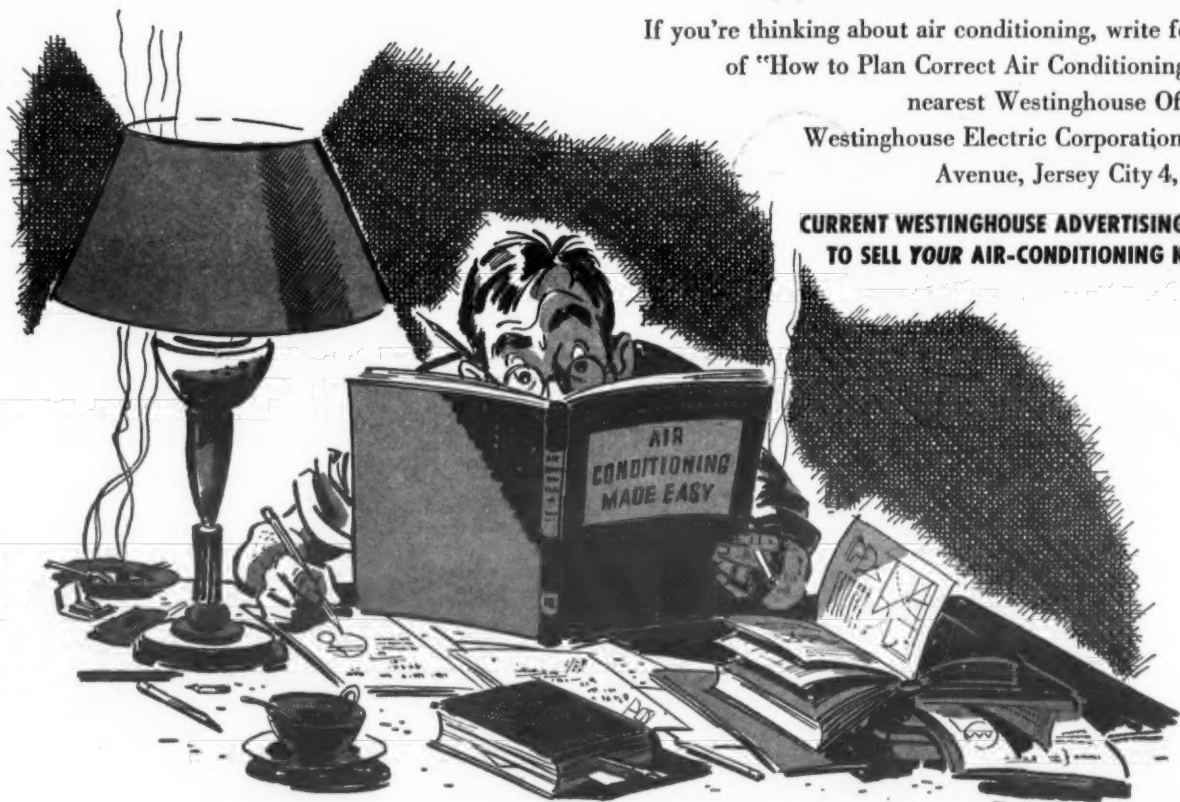
The best way to avoid a lot of "blind alley" figuring when planning an air conditioning installation is to call on the experience of a qualified expert—right from the start. That's the sure way to arrive at correct air conditioning.

By correct air conditioning Westinghouse means the scientific blending of correct temperature, humidity, circulation, ventilation and air cleanliness.

Consider these advantages of Westinghouse correct Air Conditioning: First, an air conditioning plant which will provide exactly the conditioned air you want to "live" with. Second, an installation which can be depended upon to give continued trouble-free and economical service. Third, correctly engineered equipment resulting from Westinghouse know-how.

If you're thinking about air conditioning, write for your copy of "How to Plan Correct Air Conditioning." Call your nearest Westinghouse Office, or write Westinghouse Electric Corporation, 150 Pacific Avenue, Jersey City 4, New Jersey.

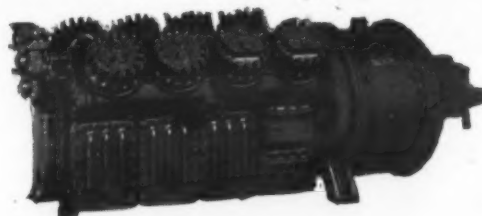
CURRENT WESTINGHOUSE ADVERTISING IS DESIGNED TO SELL YOUR AIR-CONDITIONING KNOW-HOW



The Heart of Correct Air Conditioning WESTINGHOUSE HERMETICALLY-SEALED COMPRESSOR

The entire mechanism of the Westinghouse Hermetically-Sealed Compressor—including its motor—is sealed gas-tight. This feature means sealed-in power and sealed-out trouble . . . has been service-proved in thousands of Westinghouse installations. Compact and lightweight for easy installation. Low operating costs.

Westinghouse presents John Charles Thomas—Sunday, 2:30 E.W.T., N.B.C. Tune in Ted Malone, Monday through Friday, 11:45 A.M., E.W.T., Blue Network.



Westinghouse *CORRECT* **Air Conditioning**
PLANTS IN 25 CITIES OFFICES EVERYWHERE

Airserco MODEL E-J UNIT STARTER and ANALYZER

That quickly restores to operation any HERMETIC FRIGIDAIRE, GIBSON, GRUNOW, NORGE, COLDSPOT, GENERAL ELECTRIC, AND OTHER UNITS REQUIRING EITHER SPLIT PHASE OR CAPACITOR STARTING CIRCUITS.



Patent Pending

1. Quickly starts and tests HERMETIC and OPEN type units.
2. Flexible enclosed switching, creates special starting circuits for any type motor up to $\frac{1}{2}$ HP.
3. Unique combinations necessary to correct defects in hard starting units, may be supplied later for permanent repair.
4. Circuit continuity and high voltage neon tube leakage tester.
5. Eliminates unwarranted tampering with sealed units.
6. Scientifically designed for easy operation.
7. Impressive looking and creates customer confidence.

Complete with power cord, test leads and complete detailed instructions.

AIRSERCO UNIT STARTER & ANALYZER—Model E-J . . . \$125.00

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AIRCRAFT SERVICE COMPANY
435 MELWOOD STREET • PITTSBURGH 13, PA.



FOOD MUST BE CONSERVED

Refrigeration today is performing a vital service by guarding and preserving for future use, priceless food which might otherwise be wasted. Write for literature.

GENERAL REFRIGERATION DIVISION

Yates-
American
Machine Co.
Beloit, Wis.



Principles Guiding Surplus Property Board In Disposing of Industrial Plants Outlined

WASHINGTON, D. C.—Speedy integration of surplus industrial plants into America's peacetime civilian economy so that more jobs may be created is the announced aim of Regulation No. 10 relating to the disposal of industrial property, issued by the Surplus Property Board. No preference is provided for contractors in possession who have been operating the plants for the government during the war.

To foster this basic aim, the regulation provides that the disposal agency "should seriously consider offers to purchase or lease which will

result in a lower monetary return if the applicable objectives of the Act will be better attained thereby."

Veterans and small business are given preferential treatment. The regulation gives effect to the policy of SPB that industrial facilities, particularly medium-sized and small plants, be sold or leased to local or small firms, "preferably those owned or controlled by veterans." As previously announced by SPB, the Reconstruction Finance Corp., which is the disposal agency for plants and producers goods, is directed to accept offers from responsible local groups

with adequate working capital and other necessary qualifications and to extend liberal credit terms over a period of years, in preference to a cash offer from a firm or group that would tend to concentrate economic power.

FLEXIBLE PRICING POLICY

The pricing policy is a flexible one, designed to encourage quick disposal and utilization in the expanded peacetime economy. The selling price shall be arrived at by negotiation and shall be determined by actual proposals received and by consideration of the use of the property most desirable in the light of the objectives of the Surplus Property Act. In appropriate cases sales by sealed bid are permitted. Transfers of industrial property to Government agencies, in accordance with the Surplus Property Act, are to be made at fair value. To carry out this provision, the board also issued a Special Order No. 19, which gives the formula for determining the so-called fair value. This is defined as the price that a well-informed typical buyer would pay if he were purchasing the property for a profit-making purpose. In estimating the fair value, only such rights in land, buildings, and equipment that would be of use to such a buyer shall be considered. In sales to other than government agencies, the "fair value" need not necessarily be obtained, however.

Further aid is given to small business and to veterans by granting to the Smaller War Plants Corp. the power to purchase plants under its priority for resale or lease. First priority is granted to all government agencies and second to state and local governments. Those priorities may be exercised any time before the property is sold.

ment holdings represent the dominant part of entire industries. Synthetic rubber plants, for instance, represent 98% of that industry's capacity. The government also owns 90% of aircraft, 90% of magnesium, and 55% of aluminum productive capacity.

Armstrong Cork Begins Vets' Refresher Course

LANCASTER, Pa.—With the return of the first four of its 50 salesmen who entered the armed forces, the building materials division of the Armstrong Cork Co. has inaugurated an intensive refresher program for re-employed ex-servicemen.

Under the program, each returning veteran is acquainted with the wartime progress in the division's fields and brought up to date on changes in the company. The training program runs about three weeks, depending on the veteran's length of service with Armstrong Cork and on the type of products he will handle. The four servicemen who have returned to the company are H. H. Gates, A. C. Alloway, Frank D. Schwarz, and F. D. Rupprecht. They will handle industrial products, specializing in the insulation field.

Marsh Tritrol Co. Changes Name

CHICAGO—The Marsh Tritrol Co. has changed its name to the Marsh Heating Equipment Co. and combined distribution of heating specialties and the Tritrol regulator manufactured by Jas. P. Marsh Corp., it was recently announced.

James Emmett, Jr., has been chosen to head the staff as vice president in charge of sales. The firm's main offices are at 2122 Southport Ave.

Announced purposes of the broadened activities is to offer a better engineering and consulting service. The company said its engineers, including Roy Nelson and Fred Thuemling, give consultation on all phases of heating problems.

A MAN IS KNOWN BY THE COMPANY HE KEEPS...



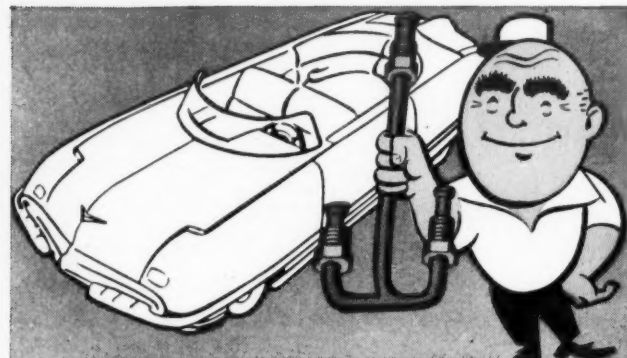
Ranco Controls, used for replacements, have kept many refrigerators running during the past four years. The work of service men in the industry can never be properly evaluated and compensated. But this work will pay dividends in the years ahead, because more and more individuals have learned about Ranco Controls at first hand, and they know their accuracy and dependability.

What is good in times of stress is equally good in times of peace. Your Ranco Jobber will soon be able to serve you more completely than ever before. Meanwhile, we ask your cooperation while stocks are building. Let us go along together to build a more secure Tomorrow.

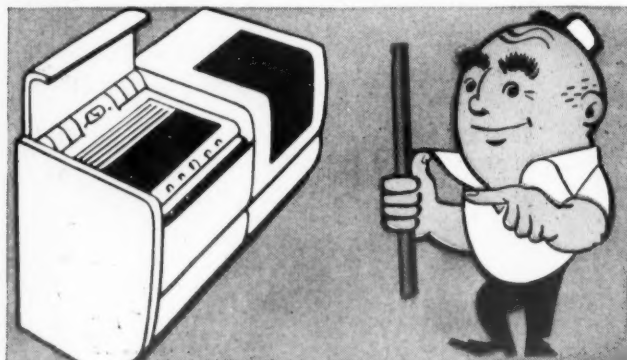
Type 91-0 Exclusive Interlocking Two-Temperature Control. For use on single or multiple unit systems. For natural or forced convection units. High relative humidity. Automatic defrosting of coil regardless of weather or load conditions or cold location of compressor.

Ranco Inc. COLUMBUS 1, OHIO

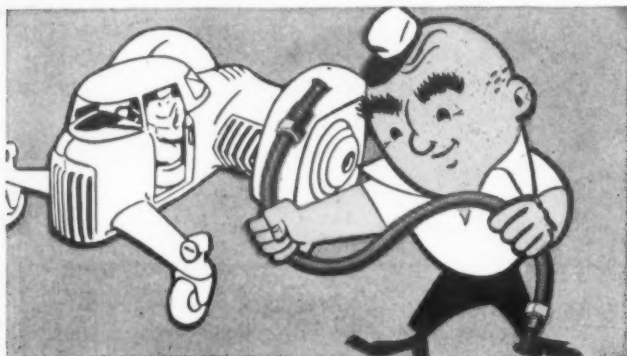
MAJOR INDUSTRIES RELY ON BUNDYWELD



1 THE AUTOMOTIVE INDUSTRY depends on famous Bundyweld for fuel lines as well as for its vital oil and hydraulic brake lines. Bundyweld Tubing is made from a single strip of copper coated steel continuously rolled twice around laterally.



3 THE STOVE INDUSTRY uses Bundyweld in many ways including gas range oven pilot tubes, shown here. Bundyweld's special manufacture assures a solid double walled steel tube, copper brazed throughout 360° of wall contact and copper coated inside and out.



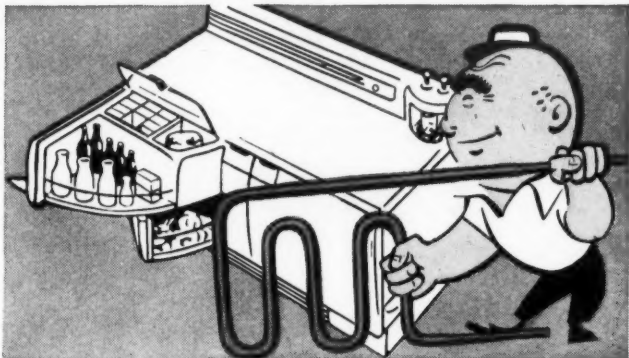
5 THE FARM TRACTOR INDUSTRY turns to Bundyweld for gas, oil and vacuum lines and most recently for hydraulic brake lines. Engineers, technicians, production experts in all fields praise Bundyweld's performance under stress, its great bursting strength and high fatigue resistance.

BUNDY TUBING

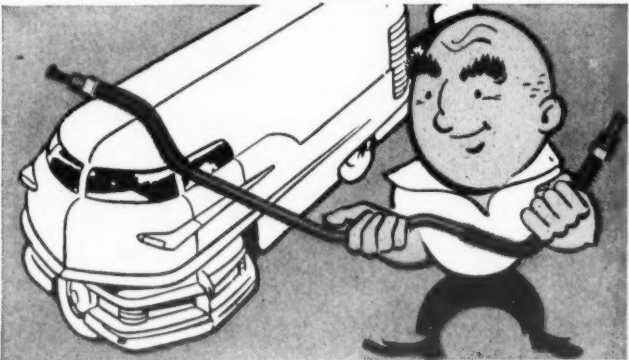


BUNDY TUBING DISTRIBUTORS AND REPRESENTATIVES:

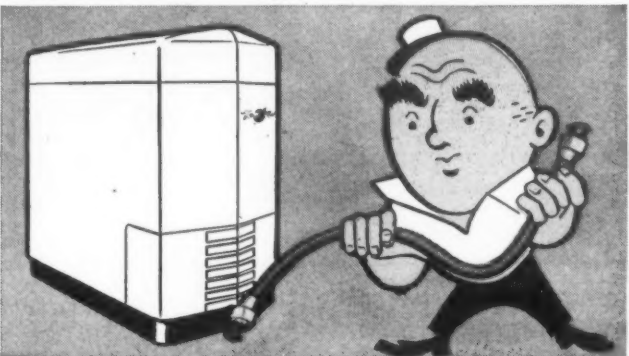
Pacific Metals Co., Ltd. 3100 19th St. San Francisco 10, Calif.	Standard Tube Sales Corp. 1 Admiral Ave. Maspeth, N.Y.C., N.Y.	Lapham-Hickey Co. 3333 W. 47th Place Chicago 32, Illinois	Rutan & Co. 112 S. 16th St. Phila. 2, Pa.	Eagle Metals Co. 3628 E. Marginal Way Seattle 4, Wash.	Alloy Metal Sales Ltd. 861 Bay St. Toronto 5, Canada
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2 THE REFRIGERATION INDUSTRY turns to Bundyweld for its "life lines" . . . used in a wide variety of applications in both domestic and commercial refrigeration units. Bundyweld's easy fabrication makes possible speedy mass production of the elaborately bent shapes required.



4 TRUCK MANUFACTURERS call for Bundyweld on fuel, vacuum, oil and hydraulic brake lines. The brake line, shown above, is double flared for leak-proof connections. Bundyweld's close tolerances, freedom from scale, walls of uniform thickness and concentricity assure quality control.



6 OIL BURNERS use Bundyweld for fuel connecting lines such as this one. Bundyweld is furnished hard or annealed in standard sizes up to 5/8" O.D. Special sizes cold drawn as desired. Also furnished in Monel and Nickel.

Insist on Bundyweld for your products

For complete information on how Bundyweld can be used to advantage in your field, contact our nearest representative or write Bundy Tubing Company, Detroit 13. Depend on Bundyweld for an outstanding performance. Its great versatility makes possible speed and economy on the production line.

APPROVAL OF SALES

No plant costing more than \$500,000 and classified as aluminum, magnesium, synthetic rubber, chemical, aviation gasoline, iron and steel, aircraft, or shipyard can be sold or leased without approval by SPB. The sale of plants costing more than \$1,000,000 must be submitted to the Department of Justice for clearance, according to the provisions of the Surplus Property Act under which SPB operates.

Since the aim of SPB is to put surplus plants quickly into production so that jobs may be provided, Regulation No. 10 sets up certain safeguards against buying by speculators. It is provided that each purchaser must certify that he is acquiring property for his own use and not for resale or lease. No plant or part of a plant, excepting the government-owned portion thereof can be dismantled or moved without first giving 30 days notice to the government of the state and municipality in which the property is physically located. This is intended to protect local communities against the loss of employment from removal of war-acquired industry.

25% OF FACILITIES

To be disposed of under this regulation of SPB are industrial plants representing 20-25% of the country's industrial facilities, or roughly one third more than the country's productive capacity before the war.

In certain categories, the govern-

AUDELS REFRIGERATION and AIR CONDITIONING GUIDE

JUST OUT! 4 Books in One!

Covering:
1. Basic Principles, Servicing, Operation, Repair of
2. Special Refrigeration Units
3. Commercial and Industrial Refrigeration
4. Air Conditioning Systems
A gold mine of essential important facts for ENGINEERS, USERS AND SERVICEMEN
Here you have at your fingers' ends a Complete Library in ONE VOLUME, the necessary data you have been looking for on: MODERN REFRIGERATION UNITS, SYSTEMS AND MACHINERY
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MAIL AUDELS NEW REFRIGERATION GUIDE for free examination, 60 days. I will send you \$4 in 7 days the first \$1 monthly until price of \$4 is paid. Others I will return it.

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Address _____
Occupation _____
Employed by _____ R-19

MAGIC IN A SMALL BOTTLE

FREEZE-UPS
ELIMINATED
RIGHT AWAY!



ICE-X quickly cures emergency freeze-ups when ice forms at the expansion valve or capillary tube. Harmless to use. Great for Freon, Carrene, or Methyl Chloride systems . . . The dependable liquid anti-freeze.



"ONE SERVICE MAN TELLS ANOTHER - IT'S GREAT!"
ORDER FROM YOUR JOBBER OR -

EXCLUSIVE NATIONAL DISTRIBUTOR
THE HARRY ALTER CO. 1728 S. MICHIGAN AVE. CHICAGO 16, ILLINOIS
JOBBERS: WRITE FOR SPECIAL PROPOSITION!

OPA Absorption Policy Retards Reconversion, Sales Executives Told

ST. LOUIS—Present policy of the Office of Price Administration of requiring that production costs be absorbed in distribution is doing "irreparable" harm to the nation's distributive system and is retarding reconversion and full employment, it was charged by George S. Jones, Jr., president of the National Federation of Sales Executives, in an open letter to that group's 8,000 members. Urging that formal protests be sent to all members of Congress and other key officials, Mr. Jones asserted that OPA's policy was "nullifying" the efforts of the National Federation of Sales Executives and of all sales management in general to rebuild sales and distribution facilities so that the peacetime goal of 50% more goods can be sold, which is "essential to the support of the nation's economy if maximum employment and prosperity can be accomplished."

"In face of the position now taken by the OPA," Mr. Jones said, "there can be only one conclusion and that is that OPA is refusing to give the green light to sales management in planning for postwar markets. Since OPA is basically an administrative division we can only conclude that this is the thinking of the majority of those people who at Washington are directing the affairs of the nation at this time."

"Although part of this is due to a 'deliberate intent to revise our entire economic structure,' Mr. Jones continued, 'much of it is due to a lack of interest and even to a lack of knowledge.'

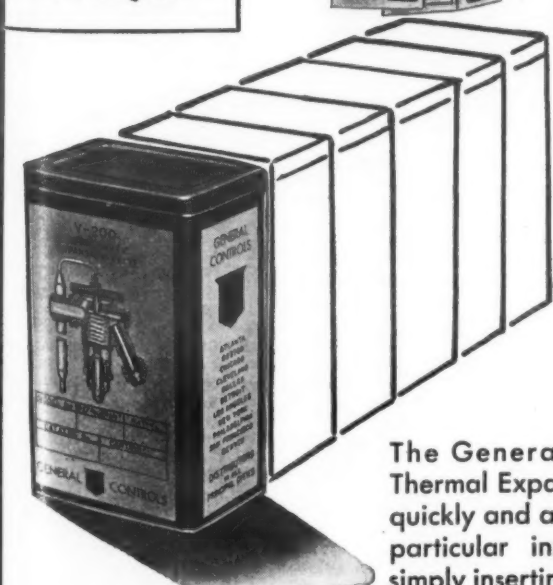
"The result is that through the OPA our government seems to overlook the fact that the only possibility of maintaining a flow of business of sufficient size to support our postwar economy is in continued improvement in the distribution machinery."



for satisfactory service
Important day-time, but more so now, MANHATTAN-Whipcord F/HP V-Belts keep home and store equipment running.
MORE POWER—grip the grooves, stop slips, uniform "pull."
LONGER LIFE—Endless cord construction resists internal heat and side wear.
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THE MANHATTAN RUBBER MFG. DIVISION
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Executive Offices and Factories . . . Passaic, N. J.

Interchangeable Orifice Cartridges Permit Proper Sizing on the job!



For complete specifications on the V-200 and other refrigerant controls, write the nearest Factory Branch, Distributor, or direct to

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801 ALLEN AVENUE
GLENDALE 1, CALIF.

Factory Branches: Philadelphia, Atlanta, Boston, Chicago, Kansas City, New York, Dallas, Denver, Detroit, Cleveland, Houston, San Francisco, Seattle, Pittsburgh. Distributors in Principal Cities

Holme Named President Of Locker Association For Coming Year

KANSAS CITY, Mo. — National Frozen Food Locker Association has elected new officers for the year beginning Nov. 1, 1945.

New president is C. G. Holme, Sebastopol, Calif. First vice president is E. G. Spencer, Houston, Tex.; second vice president, Harry Flory, Eaton, Ohio; third vice president, Vaughn R. Walker, Watseka, Ill.; and treasurer, W. H. Hasebrook, West Point, Neb.

Members of the executive committee include: Louis R. Uhrig, Carrollton, Mo.; Ray G. Purnell, Tupelo, Miss.; and Herbert G. Godshall, Lansdale, Pa.

At the election of the new officers expressions of opinion were obtained on what should constitute the primary activities of the national association. The following were the most generally voiced sentiments of the national and state officers:

Improved standards of operation and sanitation; greater profit possibilities through merchandising of frozen foods; a unified system of frozen food distribution.

Development of cooperative purchasing of plant equipment and supplies, with some suggestion that the association buy collectively.

National promotional of frozen food, and the advantages of using locker plant service and storage facilities.

6 Cities Considered for Regional Locker Meetings

OMAHA — The six cities being considered for the regional locker plant industry conventions being planned for next Spring are Atlanta, Dallas, Salt Lake City, Minneapolis, Indianapolis, and Albany, it has been learned.

These regional meetings, which will be designed to interest present and prospective locker plant operators in the areas, will be sponsored by the National Frozen Food Locker Association and the Frozen Food Locker Manufacturers & Suppliers Association. The annual national Locker Industry convention and show will be held in Cleveland the last week in October, 1946, as part of the All-Industry Refrigeration Show.

There will be exhibits at these meetings, it is planned, but on a considerably smaller scale than those anticipated at the main show in Cleveland.

Present plans call for a two-day meeting in each city with a specific program to be presented by authorities in the various fields.

Coldspot Conversion Prices Established

CHICAGO — Maximum price for conversion of Coldspot ice refrigerators into electric units has been set for Sears, Roebuck & Co. by OPA at \$99.50.

Established under RMPR 165 and effective Oct. 26, the price affects two ice models, No. 312160-A and 42236-A. OPA described the service of conversion as including pick-up and delivery, furnishing, and installation of a new mechanical refrigerating unit Model 244202, removal and replacement of the food compartment liner; drying and removal of deteriorated paint on the insulation side of the exterior shell, re-insulation of the cabinet, installation of a light receptacle, touching-up of the cabinet exterior, replacement of breaker strips, and furnishing and installation of a drain-hole plate.

Buffalo Forge 3rd Quarter Profit Totals \$229,717

BUFFALO — The Buffalo Forge Co. and subsidiaries had net profit for the quarter ended Aug. 31 of \$229,717 after federal income and excess profits taxes and after provision for renegotiation, President Edgar F. Wendt reported.

This compared with net profit, after taxes and estimated renegotiation provision, of \$111,722 for the quarter ended Aug. 31, 1944. In the second quarter of the 1945 fiscal year the company's net profit after taxes and estimated renegotiation provision was \$240,019.

Westinghouse Heater Price Is \$83.25

MANSFIELD, Ohio — Effective Nov. 1, the 40-gallon, electric-fired water heaters produced by Westinghouse Electric Corp. will retail at a ceiling price of \$83.25 for the single-element unit, and \$88.25 for the double-element heater, OPA has ordered.

Federal excise taxes are not included in these prices, which are f.o.b. point of shipment.

Class A dealers and public utility companies will get a 40% discount on purchases in less than carload quantities and an additional 5% on those by carload, Order 81, MPR 591, stipulates. Sales to other dealers and to central stations will be discounted at 25% for less than three heaters and at 32½% for three or more.

In addition to these discounts, the order subjects the prices to such other discounts, allowances, and services as extended on comparable sales in March, 1942.

Maximum prices for sales on an installed basis will be governed by RMPR 251, it is ordered.

Wiley Adds Appliances To Furniture Lines

CHICAGO — Plans for expansion of his lines of juvenile furniture and toys to include electrical appliances were announced by Joseph H. Wiley, former Norge merchandising executive, with his recent purchase of H. U. Mann's interest in the Mann-Wiley Co. Mr. Wiley will continue operation of the company, under his own name, in The Merchandise Mart.

Newsome Gets Prices On Beverage Cooler

NEWPORT NEWS, Va. — Top retail price for Newsome Air Conditioning Co.'s beverage cooler Model No. MH600 has been fixed by OPA at \$650 under Order 79, MPR 591.

On sales to distributors, maximum price for the cooler (6 ft., ¼-hp. condensing unit) is \$325 and to dealers, \$390. The prices, f.o.b. point of shipment, went into effect Oct. 31.

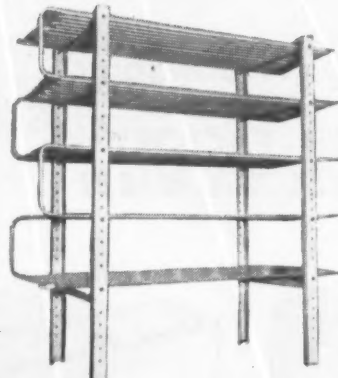
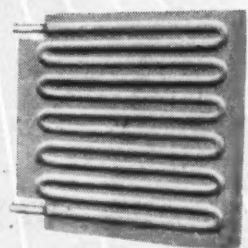
The order permits the usual additions of \$6 for crating and, on sales by a distributor or dealer, the actual amount of freight paid for delivery to his place of business. Discounts, allowances, and services must be as favorable as those on comparable sales during March, 1942.

Frank Greusel Returns

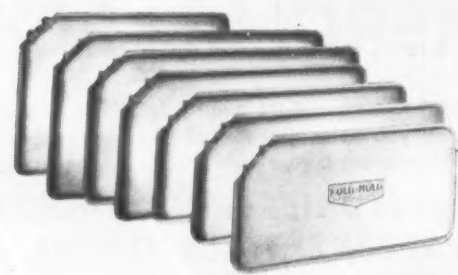
MILWAUKEE — Frank W. Greusel, former district manager of the War Production Board here, has again assumed the presidency of Greusel Distributing Corp.

Complete Line of
HERMETIC
Self-Contained OPEN TYPE
and REMOTE TYPE
Refrigerating Units
1/4 TO 20 H.P.
UNIVERSAL COOLER
MARION OHIO
BRANTFORD ONTARIO
WE SELL TO MANUFACTURERS ONLY
UNIVERSAL COOLER CORPORATION
Automatic Refrigeration since 1922

KOLD-HOLD LOW SIDES HAVE APPLICATIONS Unlimited



For locker plant space cooling, for shelves and stands in sharp freezing, or as cabinet liners, Kold-Hold Quick-Action Serpentine Plates, either wall mounted or in ceiling banks, have no equal in efficiency and dependability. In truck refrigeration, Kold-Hold streamlined "Hold-Over" Plates maintain the temperature of delivery truck bodies at the uniform level necessary in the successful transportation of fresh meat, ice cream and frozen foods. Specify Kold-Hold Low Sides for the most modern, efficient and economical method of refrigeration. Write today for complete data and engineering assistance.

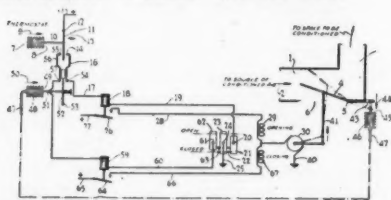


KOLD-HOLD MANUFACTURING CO.
500 N. GRAND AVE.
LANSING 4, MICHIGAN

PATENTS

Weeks of Oct. 2 & 9
(Continued)

2,386,569. AIR CONDITIONING. Robert J. Parsons, Schenectady, N. Y., assignor to Consolidated Car Heating Co., Inc., Albany, N. Y., a corporation of New York. Application Dec. 14, 1943, Serial No. 514,273. 1 Claim. (Cl. 238-78.)



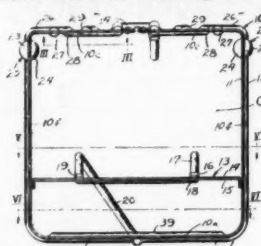
A heating and ventilating system, including in combination: a duct adapted to communicate with a source of heated air at one point and with a space to be heated at another and provided intermediate thereof with an exit for heated air; a movable damper adapted to open and close said exit and to free and obstruct said duct; an electric motor connected to said damper for opening and closing said damper, said motor provided with an armature and with an opening field winding and a closing field winding whereby the armature may be rotated either for opening or closing the damper; a thermostat controlled by the temperature of the space to be heated including a member movable a predetermined amount in a first direction on an increase of temperature and a predetermined amount in an opposite second direction upon a decrease of temperature; an opening pivoted member and a closing pivoted member between which the said movable member is positioned whereby when the movable member moves in one direction it contacts the opening pivoted member and when moved in the opposite direction it contacts the closing pivoted member; an hydraulic motor adapted to operate a member in opposite directions; a member connected to said hydraulic motor and positioned intermediate said pivoted opening and closing members and adapted when moved against either to move it; a

second hydraulic motor; connections between said second hydraulic motor and said damper whereby when the damper moves toward opening position compression takes place in said second hydraulic motor and when said damper moves to closed position expansion takes place in said hydraulic motor; a duct connecting the hydraulic motors; an opening relay and a closing relay each including an armature adapted to close a circuit when the relay is energized; a circuit controller connected to and operating in synchronism with the electric motor; a source of potential; a normal open conducting path including the opening field of the electric motor and the armature of the opening relay; a second normal open conducting path including the closing field of the electric motor and the armature of the closing relay, each said paths including the source of potential whereby when either is closed the electric motor operates accordingly; a third normally open conducting path including the opening relay the movable member attached to the thermostat the opening pivoted member, the circuit controller, and the source of potential; a fourth normally open conducting path including the closing relay the movable member attached to the thermostat, the closing pivoted member, the circuit controller and the source of potential whereby upon a change in temperature in the space to be heated the damper will be moved toward either open or closed position a predetermined amount and then the controlling circuit will be broken but be in condition to be again closed until fully open or fully closed position is reached whereupon the motor circuit for continuing motion in the same direction as that last caused will be opened but the circuit for moving the damper in the opposite direction will be in condition to be closed.

2,386,613. EVAPORATOR UNIT. Bernard C. Johnson, Mundelein, Ill., assignor to Houdaille-Hershey Corp., Detroit, Mich., a corporation of Michigan. Application July 13, 1944, Serial No. 544,748. 6 Claims. (Cl. 62-126.)

1. An evaporator unit comprising contiguous secured-together metal sheets bent to form the bottom, side walls and top of a sharp freezing chamber, embossments in said sheets forming header chambers in each side wall of the unit together with refrigerant circulating ducts around the bottom and side walls of the unit discharging at their upper ends into the header chambers and an inlet duct com-

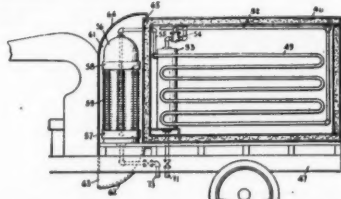
municating with the bottom portions of the circulating ducts to supply refrigerant thereto, said outer sheet having embossments therein extending from the tops of the header chamber defining embossments



over the top of the unit to define spent refrigerant ducts, and said inner sheets having localized embossments communicating with spaced portions of the spent refrigerant ducts to trap liquid in the refrigerant flowing therethrough.

REISSUE

22,677. REFRIGERATING SYSTEM. Oliver C. Irwin, deceased, late of New York, N. Y., by Standard Cap & Seal Corp., assignor, New York, N. Y., a corporation of Virginia. Original No. 2,316,792, dated April 20, 1943, Serial No. 632,741, Sept. 12, 1932. Application for reissue April 19, 1944, Serial No. 531,847. 10 Claims. (Cl. 62-93.)



1. A refrigerated truck comprising a chassis having a driver's cab and an insulated body carried by the chassis, an evaporator carried by the body, cooling coils connected to the evaporator and disposed on the interior of the body, an absorber of an absorption refrigeration system mounted outside of the body and connected to the cooling coils, means whereby the evaporator and absorber may be periodically re-supplied with fresh refrigerant and absorbent respectively, and a chimney surrounding said absorber to direct air thereover.

(Continued on next page)

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$2.50 per insertion. Limit 50 words.
RATES for all other classifications \$5.00 per insertion. Limit 50 words.
Advertisements set in usual classified style. Box addresses count as five words, other addresses by actual word count.
PAYMENT in advance is required for advertising in this column.

POSITIONS WANTED

SERVICE MANAGER: 15 years experience on low and high pressure equipment. Desires connection with large Texas or nearby concern, such as a distributor or large department store, etc. 34 years old, 3 years college. Address—L. B. PUGH, 4107 Orlando, Dallas 11, Tex., or phone W-0278.

ATTENTION MANUFACTURERS: Two reliable, industrious refrigerating engineers with years of sales engineering experience desire to represent manufacturers of condensing units, coils, valves, etc. Large acquaintance jobbers, equipment manufacturers, distributors, and designers. Location of headquarters in Saint Louis, Missouri and serve area of 400 mile radius. Box 1830, Air Conditioning & Refrigeration News.

REFRIGERATOR SHOP Mechanic. Experience on Frigidaires open and sealed units, General Electric open and sealed units, commercial and domestic. Drivers license. Prefers to work for large company or distributor. Also interested in a \$1,000 investment partnership. Box 1845, Air Conditioning & Refrigeration News.

MECHANICAL ENGINEER, 35, commercial and industrial refrigeration, heating, steam. Thirteen years business and engineering experience, six years responsible design and supervision. Connections and experience Central and South America. Knowledge Spanish and Portuguese. Best references. Your request will bring complete resume of experience and ability. Box 1856, Air Conditioning & Refrigeration News.

MAN, aged 34, with family, desires position as refrigerator service man. Graduate of technical training school. Have served one year apprenticeship with experienced service man. Have appliance selling experience. Interested in any offer presenting steady employment. Western or Mid-West location preferred. Box 1857, Air Conditioning & Refrigeration News.

SALES ENGINEER, recently discharged from the Service, with proven sales record in the refrigeration industry, desires to handle several lines as a Manufacturers Agent in Michigan, Indiana, and Ohio. Can successfully handle contacts with manufacturers and jobbing executives. Well known in area. Box 1860, Air Conditioning & Refrigeration News.

AVAILABLE: Electrical home appliance executive. Sales or general manager. Wide experience in top flight, national and retail merchandising on electric refrigerators, washers, automatic heating, and air conditioning, etc. Unusually analytical. Heavy on planning, sales promotion, and a profitable organizing producer. Box 1858, Air Conditioning & Refrigeration News.

SALES EXECUTIVE: aggressive, with many years experience in business management and administration and a successful sales engineering record contacting dealers, distributors, contractors, and manufacturers in refrigeration field, now available due to recent release from the Army. Thoroughly familiar with refrigeration equipment and supplies. Age 40. Box 1861, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

COMMERCIAL REFRIGERATION service and installation men wanted by well established refrigeration company in northwestern Illinois. Permanent employment, good working conditions, complete shop equipment, commission on labor, parts, and new equipment sales with a guaranteed minimum salary, trucks furnished. Give complete details first letter. AHRENS REFRIGERATION SALES & SERVICE, Sterling, Ill.

WANTED: MANAGER for commercial refrigeration department. Must be experienced in selling refrigerated cases, fixtures, etc., directly to the users and be able to train salesmen. KUHR BROTHERS, Savannah, Ga.

WANTED: Commercial refrigeration service man, installation and service. Prefer man with air conditioning and heating experience. Permanent position. Rated concern. Central Louisiana. Give references and experience. JOHNNIE RUSH, Box 466, Alexandria, La.

WANTED: Experienced refrigeration application engineer for design and calculation work on systems ranging from 3 hp. to 45 ton. Vacancy existing in established engineering concern, operating on a nation-wide basis. Write, giving case history, to SALEM ENGINEERING CO., Salem, Ohio.

SAN DIEGO, California. Wright Refrigeration Service requires first class service men at \$1.25 per hour with time and half over 40 hours per week. Steady work, lots of overtime, and the best climate in America. WRIGHT REFRIGERATION SERVICE, 1337 India St., San Diego, Calif.

REFRIGERATION and air conditioner man. Prefer an ex-service man but not necessary. Must be sober, honest, and be able to work with and handle men. Plenty of advancement for the right party. We handle General Electric line. Wonderful climate. Box 1290, Roswell, New Mexico.

APPLICATION ENGINEER: familiar with technical and practical applications of heat transfer equipment wanted by refrigeration and air conditioning manufacturer located in Michigan. Please advise background and qualifications. Box 1798, Air Conditioning & Refrigeration News.

DRAFTSMAN and engineer for heating, ventilation, and air conditioning. KROESCHELL ENGINEERING CO., 231 W. Ontario St., Chicago.

COMMERCIAL application and service engineers. Large refrigeration firm with growing export business has openings in several territories for qualified refrigeration application and service engineers. Knowledge of foreign languages helpful. Write giving full details experience and references. Box 1797, Air Conditioning & Refrigeration News.

AIR CONDITIONING Engineer wanted for New York market; capable designer, cost estimator, high grade application engineer; thoroughly experienced, with record of successful installations, to head up engineering department old established organization. Excellent opportunity. Give experience, references, salary desired, first letter. Opening immediate and permanent. Write fully. Box 1834, Air Conditioning & Refrigeration News.

OPPORTUNITY AUSTRALIA. One of Australia's largest refrigeration manufacturers wants aggressive young American with sales executive experience to manage its commercial refrigeration and air conditioning sales to retailers. Real opportunity in a wonderful country. Box 1838, Air Conditioning & Refrigeration News.

REFRIGERATION ENGINEER. Established Commercial Refrigerator Manufacturing Company, Middle West, good post-war business. Able to calculate refrigeration loads, coil and compressor capacities, refrigerator designs, have some refrigeration service experience in field. State education, experience, age, marital status, references, previous employment if any, starting salary expected. Box 1841, Air Conditioning & Refrigeration News.

SALES SUPERVISOR. Preferably with experience selling commercial refrigerators. Must travel. Steady employment by an established Mid-Western manufacturing company. State previous experience, reference, age, and educational background. Box 1842, Air Conditioning & Refrigeration News.

SUPERINTENDENT WANTED for commercial refrigerator plant. Old established firm located in large eastern city has opening for a man familiar with design and production of display cases and freezer cabinets. This position has a great future for the right man. Box 1844, Air Conditioning & Refrigeration News.

ABSORPTION REFRIGERATION engineer. Opening for experienced engineer for research and development of domestic refrigerators by prominent Midwestern appliance manufacturer. State education, experience, age, marital status, references, and salary expected. Box 1851, Air Conditioning & Refrigeration News.

WANTED: Experienced man having technical knowledge of air conditioning and refrigeration. Excellent prospects. Executive position with South African firm. Box 1855, Air Conditioning & Refrigeration News.

WANTED: High type man for manager of retail service and parts department. Must have experience in refrigeration and air conditioning. Permanent position. Good salary for right man. Give references when replying. Box 1859, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

CALIFORNIA LOCKER PLANT OPERATORS. You know the locker situation as well as I. Indefinite deliveries, damaged in shipment, disassembled, high freight. We are in production on our standard box and drawer combinations with the lock designed for freezer service. Write for information and prices. CHILL-DEB SYSTEM, Box 479, Lodi, Calif.

"CENTRAZ" VAPOR-SEAL. A waterproof adhesive that adheres to metal, wood, cement, plaster, etc. For lining frozen food and ice cream cabinets, milk and water coolers, walk-in boxes and all refrigeration applications requiring vapor control. Wall applications can be painted. CHRISTY CO., 1530 Olive St., St. Louis 3, Mo.

FOR SALE: Two, 2% in. electromechanical suction pressure regulators; six, 2% in. Henry two-way shut-off valves; one, 3% in. Henry two-way shut-off valves. CONTRACTORS REFRIGERATION CORP., 80-35 Queens Blvd., Elmhurst, N. Y.

FOR SALE. Remanufactured air and water-cooled condensing units 1/4 hp. up to 1 1/2 hp. Frosted food and ice cream cabinets. EDISON COOLING CORP., 310 East 149th St., New York 51, N. Y.

FREEZERS: Complete in every respect, ranging in capacity from 8 to 25 cu. ft. Excellently constructed, nicely finished, all with stainless steel tops and stainless steel doors. Large supply blower coils and freezer plates, all sizes. All equipment available for immediate delivery. Wire, write, phone GENERAL REFRIGERATORS CORP., 678 Broadway, New York 12. Stuyvesant 9-1222.

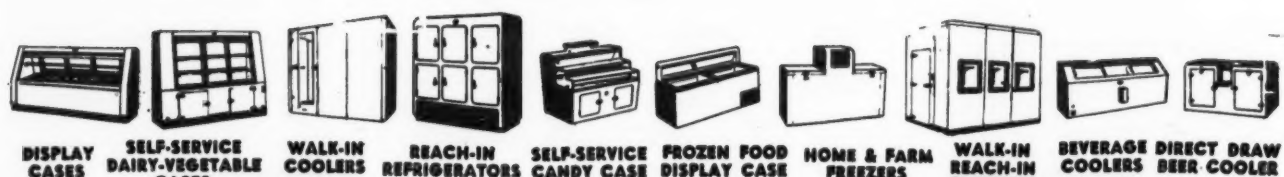
BEVERAGE COOLERS: 6 ft., capacity 22 cases; 8 ft., capacity 30 cases. These are dry coolers with heavy duty coils and one forced-air fan in 6 ft. model, two in 8 ft. model. Both have stainless steel doors and trim. Immediate delivery. GENERAL REFRIGERATORS CORP., 678 Broadway, New York 12. Stuyvesant 9-1222.

FARM AND HOME freezers, reach-in freezer cabinets, ice cream cabinets, commercial refrigerators. Immediate delivery. WILSON INDUSTRIES, 3533 Holland Ave., Bronx 67, N. Y.

BRAND NEW 3 hp. water-cooled condensing units. Leading make. ALLIED REFRIGERATION ENGINEERING CO., 1635 East 55th St., Cleveland 3, Ohio.

(Continued on next page)

JORDON Refrigerators



BEST IN DESIGN

BEST IN OPERATION

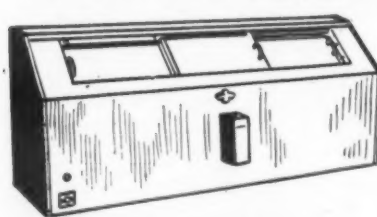
BEST IN PRICE

AMERICA'S BEST LINE OF COMMERCIAL REFRIGERATORS

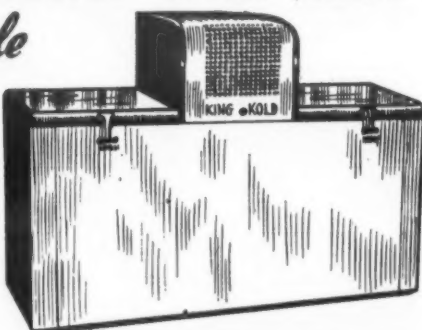
POST-WAR COMPETITION is here. NOW, you can't offer prospects "just anything." Make certain you have a practical and serviceable product . . . JORDON Commercial Refrigerators is your answer to a buying market. Our prices are OPA or below.

TERRITORIES FOR WHOLESALE FACTORY REPRESENTATIVES OPEN! WRITE OR WIRE!

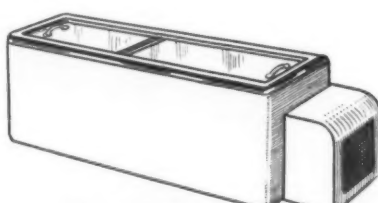
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FACTORY—PHILADELPHIA, PA.

CLASSIFIED ADVERTISING

EQUIPMENT FOR SALE (CONT.)

QUALITY DRY Beverage Coolers—75" long, 98" long, 28" deep, 39" high, with sliding stainless steel doors. Stainless steel freezers; beer pumps, blower coils, beer dispensers, tavern work benches, reach-in boxes, water coolers, new equipment. Most items immediate delivery. **MAJESTIC REFRIGERATOR CORP.**, 625 Broadway, New York 12, N. Y.

QUALITY dry beverage coolers, 75 inches long, 28 inches deep, 39 inches high, sliding doors. Freezers, stainless steel front, sides and top. Beer pumps, blower coils, cream cabinets, stainless steel beer coolers, tavern work benches. Office and cafeteria water coolers. **MAJESTIC REFRIGERATOR CORP.**, 625 Broadway, New York 12, N. Y.

SLIGHTLY USED 1 hp. air-cooled General Electric "Freon" compressor in good operating condition with 1 hp. d.c. 115 volt motor, especially suitable for Marine installations or other construction jobs. Motor can be changed for a.c. New refrigeration blower coils and other equipment for same in stock. Call, wire. **E. E. PAULLY & CO.**, Cheboygan, Mich.

BUSINESS OPPORTUNITIES

FOR SALE: Sickness compels sale of large clientele, long established refrigeration business. One of the best equipped shops in Southern California. Has steady income not dependent upon refrigeration repair. Business all clear. Can also sell home close to business. Well worth investigating. Box 1854, Air Conditioning & Refrigeration News.

FRANCHISES WANTED

ELECTRIC REFRIGERATOR manufacturers. If you have quality products at the right prices we can help you place them in the New York area, where we will service them. We have served many of the largest department stores and realtors since 1932. **FRANK SERVICE CO.**, 261 East 161st St., Bronx, N. Y.

LEADING COMMERCIAL and Industrial refrigeration concern in mid-town of New York City, in their own 5-story building, desires connections for distributing refrigerators, showcases, freezers, condensers, units, coils, etc. Have own installation, service, and engineering departments. 16 years experience in field. **SIMON'S REFRIGERATION EQUIPMENT CO.**, 783 First Ave., New York City.

EQUIPMENT WANTED

WE NEED Condensing units, both air-cooled and water-cooled. 1/4 hp. and up. Standard makes preferred. Wire, write, or phone **GENERAL REFRIGERATORS CORP.**, 678 Broadway, New York 12, N. Y. Stuyvesant 9-1222.

LARGE REFRIGERATION CO.

Has openings for experienced refrigeration salesmen to work abroad. Knowledge of foreign languages helpful. Excellent money making possibilities. Write giving full details, experience, and references.

Box 1794, Air Conditioning & Refrigeration News

EXPORT TO EUROPE

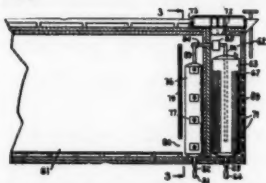
Refrigeration sales supervisor many years in industry with outstanding sales record seeks connection with large manufacturer for representation abroad. Familiar with European market.

Box 1832, Air Conditioning & Refrigeration News

Patents (Con't)

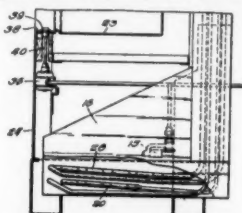
(Continued from preceding page)

22,678. REFRIGERATING SYSTEM. Oliver C. Irwin, deceased, late of New York, N. Y., by Standard Cap & Seal Corp., assignee, New York, N. Y., a corporation of Virginia. Original No. 2,316,791, dated April 20, 1943, Serial No. 632,740, Sept. 12, 1932. Application for reissue April 19, 1944, Serial No. 531,846. 11 Claims. (Cl. 62-2.)



2. A refrigerator power-moved unit comprising a body, a combined refrigerant holder and evaporator of an absorption refrigeration system mounted in the body and having refrigerant storage capacity, an absorber for the spent refrigerant mounted outside said body, a pipe connection from the evaporator to the absorber, and means in said connection responsive to the pressure in said evaporator for automatically limiting the evaporator pressure to maintain substantially uniform temperature in the evaporator.

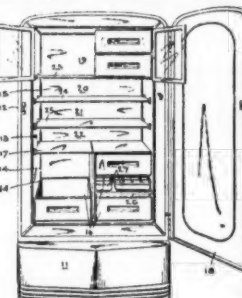
22,680. REFRIGERATOR. Joseph N. Roth, Belding, Mich., assignor, by mesne assignments, to Montclair, Inc., Greenville, Mich., a corporation of Michigan. Original No. 2,339,816, dated Jan. 25, 1944, Serial No. 380,343, Feb. 24, 1941, which is a division of Serial No. 314,704, Jan. 19, 1940. Application for reissue Jan. 15, 1945, Serial No. 572,935. 12 Claims. (Cl. 62-5.)



12. A refrigerator of the character described, including: a cabinet having a food compartment in the upper part thereof with an insulating wall therearound and a machinery compartment having portions beneath and behind said food compartment; an opening in the front of the food compartment; a door adapted to close said opening; refrigerant circulating apparatus; means for controlling the rate of circulation, said means being in a portion of the machinery compartment; and regulating means extending from the control means through said insulating wall and provided with means for manual operation located in the bottom of the food compartment immediately adjacent said front opening and accessible only when the door is open.

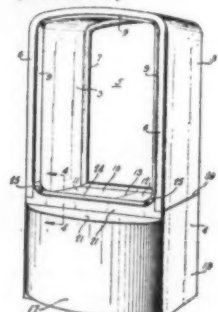
Weeks of Oct. 16 & 23

2,388,919. REFRIGERATION APPARATUS. Raymond E. Tobey, Springfield, Mass., assignor to Westinghouse Electric Corp., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Oct. 2, 1942, Serial No. 460,497. 4 Claims. (Cl. 62-116.)



1. In refrigeration apparatus, the combination of a refrigerator cabinet comprising an inner metallic shell having a portion forming some of the walls of a high-humidity refrigerated storage compartment, a refrigerating system including first and second refrigerant evaporating means, a refrigerant condensing means, and a refrigerant circulating means, a freezing compartment in said cabinet, said first evaporating means comprising a plurality of single-pass refrigerant coils secured in heat-exchange relation with said portion of the inner shell, said second evaporating means being disposed in heat-exchange relation with said freezing compartment, a single capillary tube flow-restricting device between the condensing means and said first evaporating means, means for supplying refrigerant in parallel from said capillary tube flow-restricting device to each of said single-pass refrigerant coils, means for conducting the flow of refrigerant from said first evaporating means to said second evaporating means, and a conduit connecting said second evaporating means to said refrigerant-circulating means.

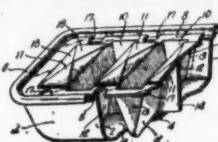
2,388,935. REFRIGERATOR CABINET. Donald E. Dalley, Germantown, Pa., assignor to Philco Corp., Philadelphia, Pa., a corporation of Pennsylvania. Application Dec. 4, 1942, Serial No. 467,895. 6 Claims. (Cl. 220-9.)



1. A sectional refrigerator cabinet outer shell comprising a lower shell section having front and side wall portions, said front wall portion having its upper edge portion extended to provide an upwardly projecting flange portion, and an upper

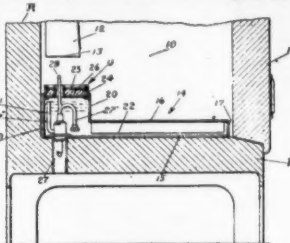
shell section composed of a single piece of sheet material having integral top, side wall, and floor portions defining therewithin a food storage compartment space, said upper shell section floor portion being supported by said lower shell section, and the front edge portion of the top and side walls of the upper shell section being turned inwardly to provide a flange portion, the flange portion of the front wall of the lower shell section lying in the same plane as the flange portion of the upper section and forming in effect a continuation of the latter at the front edge of said floor portion.

2,388,979. PLASTIC ICE TRAY GRID. Theodore W. Bundell, Abington, Pa., assignor, by mesne assignments, to Philco Radio & Television Corp., Philadelphia, Pa., a corporation of Delaware. Application Dec. 24, 1943, Serial No. 515,558. 7 Claims. (Cl. 62-108.5.)



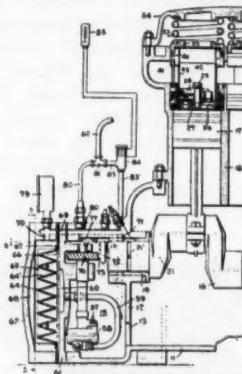
1. Ice molding means of the character described, comprising an ice tray having a marginal flange, a combination grid-and-cover member cooperative with the tray to form within the latter confined areas constituting individual freezing compartments, a marginal edge portion of said member being arranged for engagement with the flange of said tray and having therein means affording access to said areas for introduction of a liquid medium.

2,387,310. FLOOR UNIT FOR REFRIGERATORS. Charles H. Walbert, Oklahoma City, Okla. Application Oct. 13, 1943, Serial No. 506,106. 5 Claims. (Cl. 62-70.)



1. In a refrigerated structure having a food compartment and an ice chamber in the upper part thereof and having drainage means, a relatively shallow hollow floor unit adapted to be placed within the food compartment to rest upon the floor of such compartment, said floor unit having an upstanding open top well, the well being arranged to receive water from the drainage means, and a filtering unit supported in and closing the top of said well.

2,387,117. REFRIGERATION SYSTEM. Leon Buehler, Jr., Waynesboro, Pa., assignor to Frick Co., Waynesboro, Pa. Application March 24, 1941, Serial No. 385,015. 14 Claims. (Cl. 230-30.)

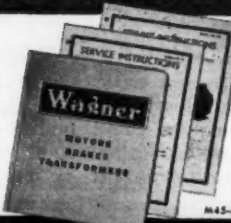


1. In a refrigeration system having a closed refrigerant circuit, a compressor having a cylinder with a piston therein and a crankcase provided with a force feed lubricating system, said cylinder being provided with spring-pressed suction and discharge valves, a control member adapted to engage the suction valve and having coacting spring return means of greater strength than the suction valve spring and whereby the suction valve is displaced from its seat to unload the cylinder, means operatively connected with the lubricating system of the compressors for applying fluid pressure to said control members to overcome the tension of its return spring and move the member clear of the suction valve and permit unrestricted normal longitudinal compression whereby the inner end of said tube is pressed tightly against said outdoor pane, said tube being made of resiliently compressible material.

(To Be Continued)

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Regulation W--

(Concluded from Page 1, Column 5)
veterans and their families. These Americans lack adequate cash to re-equip their homes even on the simplest plan and to rehabilitate themselves for civilian life.

"The regulation will prevent millions of displaced war workers from purchasing the products they need to equip themselves and their homes when re-employed by American business after migration to a new environment.

"Millions of people who have never enjoyed so-called wartime income will be deprived of the opportunity of maintaining a progressive standard of living.

"The credit curbs will restrict the vast output of American factories dependent upon consumer credit for effective distribution."

Asserting that the credit restrictions will penalize the family with small pay envelope compared to those with considerable ready cash, the petition charged the regulation "will monopolize consumer credit into the channels of big business and banking and destroy thousands of little merchants throughout the nation who for generations have served their customers' credit needs on flexible, personal basis."

Proposal Gets Mixed Reception in Chicago

CHICAGO — Some of Chicago's bankers, merchandisers, credit men, and economists are backing the proposal of the Retail Credit Institute that Regulation W controlling consumer credit be dropped by the government, but others believe the regulation should be continued.

The need for the credit curb is over and it represents an unnecessary piece of bureaucratic control as long as it remains, declared Harry C. Hausman, secretary of the Illinois Bankers Association.

He contends that business itself should police credit extension, citing the experience of auto financing in 1939, when terms were "practically nothing down and three years to pay." This was soon changed, he said, when the trade learned it was not healthy.

A bank economist, however, thought the question of continuing the regulation "not too important at present." No great need for extending consumer credit exists, he said, pointing out that the chief problem now is "to get things rolling fast" on the production front.

Mr. M. J. Spiegel, Jr., president of Spiegel, Inc., whose former business policy of full credit was hard hit by the regulation in 1942, said the situation today is "entirely different."

The institute is "talking through its hat" when it warns of the danger of small merchants, he declared, since sales volume of stores today is not limited by the regulation, but by lack of merchandise. He predicted that when merchandise is plentiful, the curb probably will be eliminated.

Schumann Heads Airtemp Plant In Indianapolis

DAYTON, Ohio.—R. J. Schumann has been appointed plant manager of the Airtemp-Indianapolis plant, A. R. Fors, vice president in charge of manufacturing, announces. Mr. Schumann has been chief estimator and supervisor of time study for Airtemp since 1942.

He joined Airtemp in August, 1936, to work in the sheet metal division as a layout man and later as a supervisor. He was transferred to the time study department in 1941 and a year later to the estimating department.

Nesbitt Rejoins Williams In New England Area

BLOOMINGTON, Ill. — John E. Nesbitt has resumed his duties as a New England district representative for Oil-O-Matic, according to an announcement by W. A. Matheson, vice president in charge of the Williams Oil-O-Matic Division, Eureka Vacuum Cleaner Co.

Since July, 1942, Mr. Nesbitt has served with the Army Air Forces and held the rank of major.

Newark Distributor Adds 3 to Staff

NEWARK, N. J.—Richard G. Gaines, Jim McCracken, and Albert K. Spears have been appointed to key positions in the T. A. O'Loughlin & Co., distributor of Philco, Estate, A. B. C., and other appliance lines here, Thomas A. O'Loughlin, president, announces.

Mr. Gaines has been appointed advertising and promotional manager. He formerly served as advertising manager for Sears, Roebuck & Co. here. Mr. McCracken, associated with Philco 10 years as work accountant, will serve as controller of the O'Loughlin firm, while Mr. Spears will direct sales activities.

Norman Honecker Joins A. E. Borden Co.

BOSTON — Norman C. Honecker has been appointed to the staff of the A. E. Borden Co., jobber here, in the dual capacity of refrigeration engineer and sales representative, it was announced recently. He will travel the Maine and New Hampshire area and a portion of eastern Massachusetts.

Since his graduation from Rensselaer Polytechnic Institute, Mr. Honecker spent five years with the Buffalo Forge Co. and 12 years with Fedders Mfg. Co. At Fedders, he was engaged in laboratory research and development on their line of expansion valves, unit coolers, and gravity coils.

MEETINGS FOR THE INDUSTRY

Nov. 1-30: Extension and enlargement of postwar appliances show at Commonwealth Edison Bldg., Chicago.

Dec. 5-7, Wed-Fri: NAM's 50th annual conference. The Waldorf-Astoria, New York City.

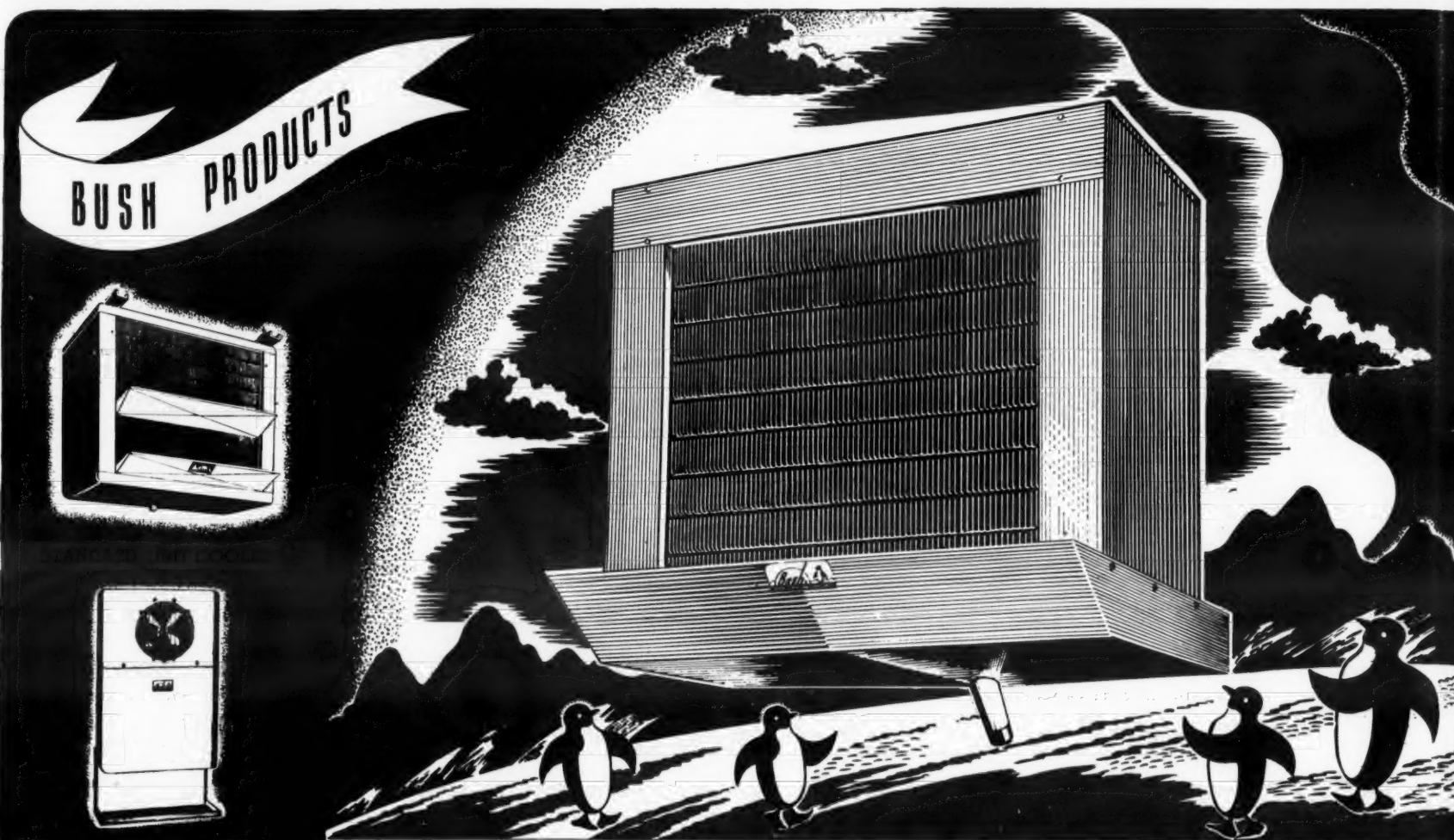
Dec. 10-12, Mon-Wed: 41st annual meeting of ASRE. Four technical sessions, others. The Pennsylvania, New York City.

Jan. 7-19: Winter market sessions at the American Furniture Mart and the Merchandise Mart, Chicago. Forums on available merchandise, new products, postwar distribution plans.

Jan. 28-30, Mon-Wed: 52nd annual meeting of ASHVE. The Commodore, New York City.

Feb. 21-22, Thurs-Fri: National Association of Refrigerated Warehouses. The Edgewater Beach, Chicago.

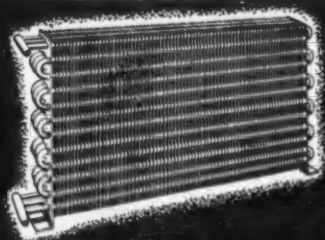
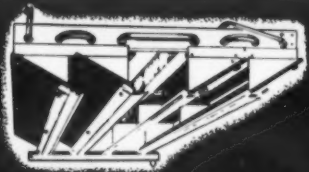
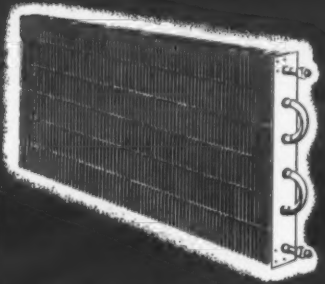
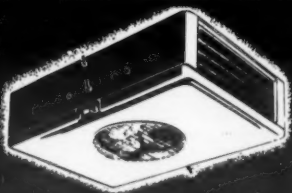
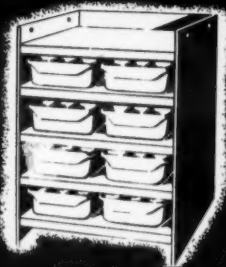
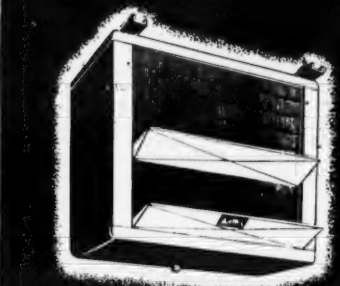
March 4-7, Mon-Thurs: Spring REMA meeting, including joint sessions with NRSJA. The Stevens, Chicago.



Bush WATER DEFROST UNIT COOLERS

Bush Water Defrost Unit Coolers incorporate a new method of defrosting using ordinary tap water! Unexcelled for low temperature refrigeration below 32°. Completely defrosts in less than five minutes, even at low temperatures, thus cutting the "warm-up" during defrosting to a minimum. Five standard sizes for all applications.

Copper tube-aluminum fin construction, also available with hot-dip galvanized steel cores for Ammonia and Brine. Defrost in four quick steps: (1) Stop evaporator fan and compressor. (2) Open water valve for 1 to 1½ minutes. (3) Allow 1 minute for water to drain off. (4) Restart fan motor and compressor.



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